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ABSTRACT

Perspectives on online learning on location in regional Australia were examined through structured interviews with 46 learners, 23 teachers, 6 managers of flexible delivery activities, 4 organization chief executive officers, and focus groups with 20 online learners. The manager interviews established that although mangers viewed online delivery as a promising means of reaching more learners, strong linkages between organizations' business and strategic goals and their operational realities appeared to be missing. A significant number of teachers reported feeling isolated and under pressure in relation to their online delivery role. The main difficulty they cited was finding time to reflect on their practice and discuss it with other teaching professionals. The main barriers identified by learners were technology-related issues. The following remedies were suggested to overcome them: (1) improve regions' telephone infrastructure; (2) provide a better delivery system and more instruction for uses before and during their program; (3) offer classes for beginners to assess their readiness for online study and enhance their information and communication technology skills; and (4) provide greater support throughout courses and personal tutoring. (Thirteen tables/figures and 26 references are included. The document's 12 appendixes included the following items: various study-related correspondence and consent forms; the various interview and focus group questions; and details regarding the learner and teacher interviews.) (MN)

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Online learning on location

Perspectives from regional Australia

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Chris Horton
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Background

In August 1999, the Australian National Training Authority chief executive officers endorsed the *Australian Flexible Learning Framework for the National Vocational Education and Training System 2000–2004*. The Australian Flexible Learning Framework has been developed by the Flexible Learning Advisory Group and represents a strategic plan for the five-year national project allocation for flexible learning. It is designed to support both accelerated take-up of flexible learning modes and to position Australian vocational education and training as a world leader in applying new technologies to vocational education products and services.

An initiative of the Australian Flexible Learning Framework for the National Vocational Education and Training System 2000–2004

Managed by the Flexible Learning Advisory Group on behalf of the Commonwealth, all states and territories in conjunction with ANTA.

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Executive summary

In recent years there has been more than a passing interest in online learning at the state and national level. This current study, one of a series of investigations on online learning auspiced through the Australian Flexible Learning Framework, sought to examine the factors that influence the uptake and effectiveness of online learning in regional Australia, looking in particular at the benefits and barriers this mode offers either 'stand alone' or as part of a structured program of delivery.

The research methodology focussed on interviewing and discussing aspects of planning, delivering and experiencing online learning with managers within educational organisations, as well as educational developers, teachers and, above all, learners. The methodology also ensured that discussion occurred with learners and teachers during the period and process of the learning experience taking place, which helped to give their recollections greater immediacy and currency. This strategy was adopted to enable an investigation of some of the organisational aims and understandings, and contrast and compare them to the actual 'lived' experience of learners and teachers during online learning.

Delivery sites visited included ten campuses of four regional technical and further education (TAFE) institutes active in providing online learning in three eastern states of Australia: Tropical North Queensland, Onkaparinga (South Australia) and Goulburn Ovens and Wodonga in Victoria.

The learners' perspective was obtained via:

- structured interviews with 46 learners (face-to-face or by telephone) at or near commencement, with follow-up interviews 6–8 weeks later
- 20 learners met in focus groups (3) with researchers
- 8 learners produced 'learner diaries'—a continuous email commentary.

The provider experience was obtained via:

- structured interviews with teachers (23) (initial and follow-up)
- managers of flexible delivery activities (6) and organisation chief executive officers (4)
- published demographic and corporate information.

This methodology was developed in order to give a 'layered' account, and allow monitoring of the extent to which learner expectations were fulfilled over time, as well as examining factors which learners identified as contributing to the effectiveness, positive or negative, of this mode of learning for them.

Managers interviewed for the project indicated that the development of an online delivery profile was good for regional and rural communities as a means of reaching more learners and providing them with access to a greater range of learning opportunities, and was an important part of their organisational business goals. What appeared to be missing at this point were strong linkages between the business and strategic goals, and the operational realities. Further, many of the aims of organisations became difficult to realise when considered alongside barriers which included:

- inadequate or inappropriate infrastructure both inside and outside the organisations

- accessing and maintaining skilled staff, along with industrial and professional development concerns arising from flexible delivery modes and demands
- lack of appropriate materials for implementation and support of online delivery
- ineffective/inappropriate delivery platforms and learner support systems
- the lack of co-ordination in the development of policy and platforms between state and national authorities
- inadequate research to identify and define online learner markets.

One aspect of all organisations visited was that the traditional student management and tracking systems did not provide a simple way to identify and make contact with online learners, either to locate learners involved in fully online courses, or to identify where online learning was integrated with other modes. Manual or anecdotal forms of 'corporate knowledge' were used to direct the research team to known examples of online practice, and to the teachers supporting these.

Decisions by teachers to engage in online delivery appeared to be related to their motivation, preferences and previous experience, rather than being driven by a set of strategic directions about where flexible and online delivery might suit learners best. A significant number of teachers reported feeling isolated and under pressure in relation to their online delivery role. The main difficulty they faced seemed to be finding the time to reflect on their practice and discuss it with other teaching professionals both inside their own organisation and outside.

Evidence from this study showed that the main benefits that learners anticipated from online learning were convenience and flexibility, choice, challenges, and the provision of opportunity to develop computing skills. Learners anticipated that the negative aspects of the online mode would include:

- isolation, especially lack of contact with other learners
- that it was slower and more time-consuming
- not knowing how to use the technology and/or technology failure
- the need for self-discipline and good time management
- a long response time to queries.

A number of the learners who provided follow-up responses, but not the majority, indicated that many of these expectations had been realised at some level.

The main barriers identified by learners were technology-related issues. Remedies suggested to overcome these include:

- improvements to the telephone infrastructure in their region
- the provision of a better delivery system and more instruction for users before and during the program
- classes for beginners to assess their readiness for study online and to enhance their information and communication technology skills
- greater support throughout the course, and personal tutoring.

The key factors affecting user choice in this environment are whether the mode can be accessed affordably and with a realistic chance of success. Nationally, accessible and affordable online provision is expanding, but the evidence from this study indicates that much work remains to make online learning an option that is cost-effective and reliable both for regional providers and the majority of their population.

Where learners have no other options than online delivery—the case for most of the learners in this study—it becomes a major concern when technical and infrastructure problems combine with inadequate resourcing of critical features of the delivery mode, to produce a lower likelihood of successful engagement and completion of VET programs. Such problems appear more likely in regional areas.

As long as regional and rural telecommunication systems are inadequate to sustain reliable and speedy links, learners will struggle and become disheartened with the online mode. This is coupled with teacher concerns that they are not yet resourced and supported within their institutes and state systems to maintain an adequate quality of service. Regional VET providers and public systems therefore have significant barriers to overcome before the acknowledged benefits of reliable online delivery to regional and isolated learners, operating in an environment of adequate choice and support, can be realised.

Introduction

This study sought to examine the factors that influence the uptake and effectiveness of online learning in regional Australia, looking in particular at the benefits and barriers this mode offers either 'stand alone' or as part of a structured program of delivery.

The research team wanted to test out the 'anywhere, anytime …' promises that accompany online learning; the promotion of 'learning in a time and place that suits you …' and also the organisational motivations behind providing online learning options.

The expansion of online learning opportunities since the development and implementation of the 1999 Australian National Training Authority's (ANTA) Collaborative Framework (EdNA VET Advisory Group 2000) has certainly enhanced access to education for some communities, groups and individuals. The purpose of this investigation was to look in depth at how regional and rural Australians are experiencing and capitalising on these innovations.

Research focus

In part, the need to investigate online learning in regional environments arises because of the shortage of information for policy-makers, communication platform providers and educational developers, as they devise strategies to enable people in regional and rural Australia to access education online and to improve their experiences and outcomes. The aim of the research was to determine:

- whether there were different drivers of choice in rural and regional Australia from those affecting learning providers and learners in metropolitan Australia
- whether the generic problems identified in other research on online program provision and learning were exacerbated by being at a distance from metropolitan centres
- how online alternatives had been exploited by vocational education and training providers and learners in regional areas
- the extent to which flexible learning options with an online component are viable options for providers and users in regional areas.

This research explored online learning from the perspective of the learners, teachers, flexible learning managers, and chief executive officers of four vocational education and training providers in different regions of Australia.

The study was deliberately and specifically focussed on *regional* centres and their associated *rural* 'territory'. Eighty-nine per cent of Australia's non-metropolitan population (about 4.7 million people) live in such areas. The issues for, and needs of, *remote* communities and populations are not directly addressed. However, the outcomes of this research may also clarify some aspects of the benefits of online learning and the barriers to online learning in remote Australia.

The selection of participating providers/learners was made to ensure a spread across states and regional environments from organisations with a stated commitment to the development and support of online learning. The provider sample and their locations offer some useful similarities for

comparative purposes, particularly in terms of organisational dimensions, and the hub-and-spokes pattern of regional location/ delivery from a key regional centre (or metropolitan fringe) to smaller towns and rural settlements. There is also a rich spread of demographic and occupational patterns across the provider locations, and a diversity of client needs and programs.

The providers and regional locations selected were:

- Onkaparinga Institute of TAFE, South Australia (Onkaparinga)
- Goulburn Ovens Institute of TAFE, Victoria (Goulburn Ovens)
- Wodonga Institute of TAFE, Victoria (Wodonga)
- Tropical North Queensland Institute of TAFE, Far North Queensland (Tropical North).

Our methodology focussed on interviewing and discussing aspects of planning, delivering and experiencing online learning with managers, educational developers, teachers and learners, in order to investigate some of the organisational aims and understandings, and contrast and compare them to the actual lived experience of learners and teachers. The literature review conducted as part of the project set out to explore learner and provider attitudes, and the opinions and experiences of online learners; that is, what the key stakeholders in this area have been saying about online learning over the past few years.

Structure of report

The chapter describing the methodology adopted for this research follows the literature review. The profiles of the various organisations selected for study are given in the following chapter, while subsequent chapters describe the perspectives of the various stakeholders who are the subject of this research project—management, teachers and learners. The appendices contain the various instruments (for example, questionnaire, focus group questions etc.) utilised by the project.

Literature review

A key aspect of this project is an investigation of what online practitioners, researchers and learners from all sectors, but particularly the vocational education and training (VET) sector, have been saying about online learning over the past few years. In this context, it is critical to examine how organisations and individuals are managing the challenge of learning online, and the extent to which online learning is being utilised as a credible and sustainable tool for learners, particularly those in regional and rural areas in Australia.

In the publication, *A strategic framework for the information economy—identifying priorities for action* (Department of Information Technology and the Arts 1998), the federal government stated its policy aims for using technology to enhance access to education, particularly within the schools sector. Included are the following paragraphs which relate to access for rural inhabitants:

> Online technologies, in themselves will be an important tool in the cost effective provision of education and training. They offer the potential to transform the ways in which teaching and learning occur. For rural and remote Australia, online technologies offer a unique opportunity to address educational disadvantage stemming from the tyranny of distance. Not only do they facilitate communication between the student and the learning institution; they also enhance interaction between the students themselves, allowing them to share their ideas and work on group projects.
>
> For schools, the challenge is to provide all young Australians with the general information technology skills and learning resources that will equip them to take advantage of future student training opportunities. We need to ensure an 'information-rich-information-poor' divide between schools does not develop. Teachers, especially those in rural and remote areas, will need access to professional development and training so that they can coach students in the online environment and use information technology as a teaching tool. High quality, locally produced online content that is relevant to Australia's education system is essential.
>
> (Department of Information Technology and the Arts 1998, p.11)

This statement is important for providers at both the school and vocational education training provider level. People in regional and rural areas of Australia will frequently access VET as their major post-school educational experience. Within VET, online education is an important component of providing accessible, cost-effective, flexible training to those who often require diverse choices in their training in terms of when, where and how they participate in it.

To begin this literature review we set out to explore some of the practices related to online learning by questioning some of the central premises, arguments and propositions in relation to online learning put forward by educational managers and practitioners over the past five to ten years. These are that online learning:

- ✧ improves accessibility to learning opportunities
- ✧ facilitates learning at a time and place which suits the learner
- ✧ is a learner-centred activity
- ✧ increases the level of choice and control a learner has over his/her learning
- ✧ enables teachers to adopt and adapt new teaching and work practices

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- makes VET workplaces more flexible
- decreases the costs associated with teaching by identifying wider audiences
- decreases the costs associated with teaching by making smaller class sizes viable
- maintains the skill levels of Australian teaching staff in line with current world standards.

The literature review set out to explore learner and provider attitudes, opinions and experiences under the research themes central to this project, including:

- the experiences of the online learner
- the benefits and barriers of online learning
- the strategies required to overcome barriers.

The experiences of the online learner

In examining the experiences of online learning, we looked first for some current definitions of what online learning means to organisations developing an 'online capability'. We believe that the description offered by Booker (2000) most closely matched our understanding of the concept of online delivery:

> We need to remember that in using the term 'online delivery', we are not necessarily talking about courses which are entirely delivered online and off campus. In fact many VET providers are using online delivery as an adjunct to other forms of delivery. For example:
> - combined with face-to-face delivery
> - combined with distance delivery
> - on campus in computer suites
> - using only some components of online delivery (e.g. Email and conferencing)
>
> (Booker 2000, p.7)

While this definition is necessarily broad, we felt that, because there are so many ways online learning is being integrated into practice, a broad set of parameters was required for use in identifying and observing different learners from the four research sites.

Mitchell (2001) describes eight different mindsets of providers, who develop and deliver online products. The approaches to online product development are:

- product centric (learning platform development)
- technology centric (obsessed with the platforms and delivery infrastructure)
- sales centric (investing for a sales return)
- market centric (learners needs are central)
- learner centric (learners in control)
- ID centric (industry is central)
- accreditation centric (qualification outcomes)
- politically centric (online delivery a vote winner).

If this list gives us a marketer's version of what the learner may experience, what actually are the characteristics of this learning experience?

We know that many learners are attracted by the prospect of managing their own learning and undertaking their study in a time and place that suits them (Else & Hicks 1998). Harper et al.

(2000) comment that the experience can be quite beneficial when compared with other forms of distance delivery:

> For students accustomed to attending a campus, online delivery has the potential to offer learners greater flexibility in where and when they study. For distance students, online study can improve communication with instructors and peers and increase access to information sources. (Harper et al. 2000, p.25)

Harper et al. conclude that, by providing more forums for contact and interaction with peers and teachers, online learning can help overcome feelings of isolation associated with other forms of distance education. In addition, learners can be challenged to develop new skills and reconceptualise their understandings of themselves as learners.

When undertaking study online, are learners able to maintain the energy, enthusiasm and commitment which is so important when undertaking a tertiary course? When we have a significant amount of evidence which supports the notion that much learning is done through interaction with peers and with a variety of face-to-face communication strategies available to teachers, are the accompanying communication structures and practices enough to sustain learners throughout the process of learning?

Cornell and Martin (1997) cited in Harper et al. (2000) suggest that the challenges for learners *and* facilitating learning include:

- maintaining learner motivation
- degree of acceptance by learner and teacher
- prior participant knowledge
- attitudes toward technology
- level of content
- degrees of interactivity
- difficulty in using the system
- ease of accessibility to the system
- teacher and learner ability
- communication skills. (Harper et al. 2000, p.25)

The experiences of learners can often be confusing, frustrating and difficult. These are related to not knowing how to access information and, often, not even being sure whether the problem lies with the organisation they are learning with, or their own levels of technical skills (Stein, Smith & Silver 1999).

Corrent-Agostinho and Hedberg (1998 cited in Harper et al. 2000, p.26) claimed that '… students reported … lack of motivation to participate, procedural confusion (for example, when to sign on) and technical difficulties …'. Oliver and Omari (1999 cited in Harper et al. 2000) noted that learners '… reported that the online environment required them to spend more time preparing for class activities that were different from those they had previously experienced …'.

Harper et al. (2000, p.27) summarise many of the issues and experiences for online learners.

On the positive side:

- flexibility, in particular, choosing when and where to study
- being able to study at home (allowing for family considerations), or studying in the workplace
- gaining familiarity with the use of technology at the same time as studying
- expanding communication networks with teachers and other learners
- improving their study motivation through using the online medium.

On the negative side:

- ✧ the reliability and speed of the technology
- ✧ the cost of equipment and the availability of alternative forms of access
- ✧ for rural and remote learners, expensive internet access and poor technical infrastructure
- ✧ the need to be a self-directed learner—and to retain self-regulation and motivation.

Curtain (2002) documents five case studies on the cost-effectiveness of online learning. In relation to one of them, Qantas Online, he reports that each course is designed to be undertaken in 20–30-minute sessions each week, with learners spending about one hour online each week. The learning courses were well attended by Qantas staff, who found it easier to access learning online, because it was easier to gain release from their work environment to undertake study this way.

In this environment Curtain (2002) notes '… online delivery makes it easier for individuals to make decisions about undertaking further learning related to work and their career prospects within a large enterprise' (p.29). The Qantas case study also related an improvement in completion rates from one year to the next (moving from 21% to 32%) to improved registration and enrolment processes, the introduction of study guides for all online courses and improved access to computers at work.

Curtain (2002) also investigates the effectiveness of a certificate IV in information technology and comments that the course developers, Webb and Gibson (2000 cited in Curtain 2002), report that the rate of work submitted is considerably higher than courses utilising traditional distance education delivery modes. They also reported that completion rates to 1999 began to approach the lower end of face-to-face completion rates, then began to fall away in 2000. They attributed this decline to a decrease in interactivity due to staff (cost-cutting) reductions.

The benefits of and barriers to online learning

The barriers which stand in the way of online learning are many and complex. As practitioners, and indeed learners, are coming to grips with using new communication modes as part of the process of participating in online learning, it is a reasonably difficult process to elicit unequivocal responses about the many issues involved.

Organisational perspectives

For many organisations, some of the perceived early benefits were, to some extent, characterised by the possibility of cutting the costs incurred by regular face-to-face interaction with learners. While most professionals in education would now agree that there are no actual cost savings to be made by this form of delivery, it is difficult to find clear evidence of the costs of delivering online and a comparison of these to more traditional modes of delivery. Many professionals involved in online delivery talk about the time they put into development of materials and support of learners as largely unpaid. However, organisations often perceive these inputs as professional development.

As Harper et al. (2000) note, organisations value the flexibility of online learning.

> [The] link between the principles of lifelong learning and use of information and communication technology [ICT] is reflected in the move by many educational organisations in adapting their policies and practices to support a more flexible approach to learning. Flexibility has become the catchcry of post-compulsory education. (Harper et al. 2000, p.6)

Educational organisations have also been prompted to adopt an online capability by the recognition that unless they develop this, learners will be attracted to big name providers both here and overseas. Furthermore, online provision is part of a large suite of services a learner may want.

Organisations see real benefit in having an online capability in terms of attracting learners looking for a progressive, modern organisation. To many, it is a marketing edge which provides proof to consumers that they are able to offer choice and are responsive to the needs of a busy individual or organisation.

Many educational organisations feel that flexible delivery is what large organisations want from their training and for their workers:

> Increasing the flexibility of training delivery has been justified in terms of preparing workers for work environments which increasingly reward independence and self-direction. It has been based on principles of social justice which aims to provide fair access for all groups wishing to participate in training. (Misko 2000, p.1)

Organisations are also attracted to the capacity of online systems to provide information and resources storage for both teachers and learners, thus acting as an organisational 'collective memory'.

Harper et al. (2000) cite Hedberg et al. (2000) who remark that using an online site:

> For collaboration between the trainers and the trainees allows the development of a '... repository of resources and the organisational memory of past, present and future staff. The concept of employing the site to provide training alone was shown to have limited appeal in organisational renewal'. (Harper et al. 2000, p.19)

Obviously, for organisations and for teachers to make online learning work requires rethinking current teaching and learning models. Sometimes practitioners and researchers have looked first at the technology, then at the online learning experiment, and evaluated online learning utilising those two aspects only. Many are now beginning to realise that both the newer and the more traditional modes of teaching need to be examined.

> Reports from current practitioners suggest that, rather than being a straight forward conversion process, moving to online mode requires a reconceptualisation of teaching and learning. Such a move necessitates the development of new skill-sets on the part of both teacher and learner and impacts upon the resources, structure and practices of educational organisations. (Harper et al. 2000, p.6)

Most organisations are still struggling to come to grips with what teaching and developing online products entails for teachers. There are no hard and fast rules and many organisations are still experimenting with a range of practices. Practitioners report that they expend unpaid hours into both support of learners and development of products. In addition, it is unclear whether organisations take careful note of these extra contributions and intend to account for this time in future planning for online development and delivery (Brennan, McFadden & Law 2001).

Curtain (2002, p.31) says there are three key lessons relating to organisational issues arising from the case study he carried out during the OTEN (Open Training Education Network) certificate IV in information technology studies. These include:

- The cost-effectiveness of online delivery depends on a supportive wider institutional setting ... the result is an emphasis on cost-efficiency rather than cost-effectiveness.
- The lack of integration between systems ... integrated software would enable the achievement of major efficiencies for both administrative staff and instructors ... in the processing of applications and assessments.
- ... the absence of industrial arrangements that reflect the realities of the online environment. (Curtain 2002, p.31)

Gosper et al. (1996 cited in Harper et al. 2000), observe that their study identified the following barriers to online learning including:

- Time and expertise involved in preparing materials for teaching in new formats
- Lack of time for devoting effort into IT training
- A system that emphasises research over innovative teaching
- Increased workload
- Capital costs associated with IT. (Harper et al. 2000, p.18)

Harper et al. (2000, p.21) also observe that teachers raised the following concerns in a survey regarding online learning:

- Online work is undervalued because it is seen as a secondary activity.
- There is a need to make realistic assessments of workloads because online teaching is more intensive than traditional distance education.

Teacher and facilitator perspectives

Many in this group perceived that the development of online learning would place them at the cutting edge of teaching. It has been assumed that change would be rapid, and adoption of online learning practices also relatively rapid. A number of teachers/facilitators may have felt that they would also have more control and autonomy over the amount of time they need to spend preparing, presenting and reviewing learner progress.

Moreover, teachers have anticipated that demand for this type of learning would be high as learners everywhere want more control and autonomy over their learning and their time. Systems redevelopment is an integral part of making the 'anywhere, anytime' concept a reality, and one which has not been able to keep pace with these changes (Brennan, McFadden & Law 2001).

Teachers have also been keen to see learners manage their own learning and develop new communication techniques and skills. By using online forums and becoming adept at these, learners, teachers believe, are having their learning enhanced by these extra opportunities (Schofield et al. 2000).

Booker (2000) discusses some of the benefits relating to online learning as:

- delivering course materials directly and conveniently to learners
- embedding flexible learning/adult learning principles with the learners
- allowing learners to be self-paced
- supporting dispersed learners and building networks of learners and teachers
- improving the speed and quality of learning
- encouraging reflective interaction
- facilitating the learning process in a 'fun' way. (Booker 2000, p.8)

Learner perspectives

Why do learners choose this mode of delivery? Flexibility is mentioned time and time again and much of the literature points this way.

In a study carried out by Josie Misko involving 769 students:

> ... the most frequently reported reason given by the flexible delivery students was that it fitted their lifestyle. This was followed by the perception that it was the most convenient method offered. For the traditional face-to-face students, the most common reason was that the method was the only one offered. This was followed by the perception that the method helped them to understand the materials better. (Misko 2000, p.18)

Some learners believe that they will receive more personalised and tailored help when learning online and flexibly—that their circumstances are being individually considered and serviced:

> … flexible delivery students were more likely to say that they had been given a great deal of help than the traditional delivery students. In addition, a greater percentage of traditional delivery students reported having received no help at all. (Misko 2000, p.19)

Misko (2000) also notes that: 'when the responses from those who reported that they had received an adequate amount of help are combined with those who reported receiving a great deal of help, flexible delivery students indicated that they received more help [than traditional delivery students]' (p.19).

Many writers caution that not all learners are suited to online learning, even though it may improve access to educational opportunities (Choy, McNickle & Clayton 2002, p.12). The benefits and limitations expressed by learners in the Choy, McNickle and Clayton study are summarised by the following, the benefits being:

- ✧ familiarisation and confidence in the use of the technology
- ✧ contact with teachers and other learners
- ✧ faster responses to queries
- ✧ more motivating mode.

On the limitations side, they included:

- ✧ regular problems with reliability and speed of technology
- ✧ cost of equipment and access
- ✧ sometimes difficulty in adaptation to the self-directed nature of online learning.

(Choy, McNickle & Clayton 2002; Harper et al. 2001; Brennan, McFadden & Law 2001)

Many teachers feel that, while participants need to become comfortable with the medium and used to new ways of communicating, many online communication platforms are under-utilised or are even not being used at all (Harper et al. 2000, p.22). Some teachers also claim that: 'Synchronous technologies were seen to present problems for those not wanting to be constrained by time and those lacking good typing skills …' (Harper et al. 2000, p.22).

Learner preparedness and readiness for online learning is a theme that commentators emphasise again and again, while Choy, McNickle and Clayton (2002, p.12) note: 'While organisations appear to be aware of the implications of online delivery, … many have not yet developed a comprehensive strategy to address student preparation'.

Choy, McNickle and Clayton (2002) also identify issues for older learners when they comment that: '… online providers must not leave behind those who are less technically capable. Computer illiteracy still exists, especially within the older student population …' (Choy, McNickle & Clayton 2002, p.12).

Also in relation to learner readiness for online study, Choy, McNickle and Clayton note that: 'Not only are there assumptions being made about the self-directed learning skills of the student, but there are many assumptions being made about students' possession of information literacy, functional literacy and IT literacy skills required to use the medium' (2002, p.13).

Choy, McNickle and Clayton identify further issues for learners associated with being online. These include:

- ✧ a new mode of learning in a different learning environment, often without access to readily available support
- ✧ information overload
- ✧ passive interaction
- ✧ no socialising

- ✧ the cost and time involved in printing downloads and technical malfunctions.

(Choy, McNickle & Clayton 2002, p.13)

Other issues relating to learners undertaking online learning are identified by Mildon (2000 cited in Choy, McNickle & Clayton 2002, p.22) who sees the challenges for Qantas online learners to be:

- ✧ overcoming the fear of technology
- ✧ self-managed learning made more complex by technology
- ✧ overcoming isolation and participating in group learning
- ✧ online support for learners, including administrative systems
- ✧ good, clear documentation to support learners
- ✧ technical support for learners and tutors.

Infrastructure issues

In the context of this study it is important to try to separate the various issues which undermine and limit the effectiveness of online study. The literature supports our belief that problems experienced by learners and by educational organisations relate to the infrastructure and technical issues. As Harper et al. (2000) note:

> … the lack of infrastructure is a major problem for learners in rural and remote areas and, to some extent, in regional areas. Although the potential benefits of online learning are apparent, for these students access is often slow and unreliable and charges can be very high.
>
> (Harper et al. p.28)

The group of researchers have identified additional barriers as:

- ✧ cost for internet access
- ✧ who pays
- ✧ speed/reliability of access.

Chris Sidoti, a Former Human Rights Commissioner for Australia, has carried out extensive investigation of issues regarding access for rural and regional Australians. He addressed the TAFE Directors 2001 conference and made the following comments with regard to telecommunications infrastructure:

> Education access is increasingly dependent on access to the internet and related technologies. The internet in particular offers extraordinary opportunities for teaching and learning in remote and isolated areas, opportunities at last to break down the inequalities caused by distance …
>
> Yet we found that internet access remains costly and unreliable in many rural and remote areas and in some areas there is no access at all. Technology infrastructure also requires people with the skills and expertise to maintain and support these systems … Because of differences in line quality and in cost, at this stage information technology is increasing the inequality between city and country, not reducing it.
>
> TAFE [technical and further education] outreach programs for rural students are often internet based. They are good, innovative programs that offer new opportunities. But their potential cannot be realised unless the students can access reliable services at an affordable price.(Sidoti 2001)

These comments are particularly relevant when considering the issues for online learners in rural and regional parts of Australia. Unless access issues, including cost, reliability and underpinning skills are addressed, learners will not be in a position to take advantage of the opportunities implicit in online learning. Thus a broad range of educational options and strategies are required to overcome the digital divide in rural and regional Australia (Sidoti 2001).

Strategies required to overcome barriers

There are a few implications for rural and regional learners if barriers to online education are not addressed. The most obvious and politically driven issue will be the divide between those who are able to access education and those who are not. There are many authors who have begun to explore the increasing divide between those who have the tools to access online education and those who do not.

In *The digital divide*, McNickle (2001) observes that to succeed as an online learner, learners need to be proven self-directed learners. However, research by Warner, Christie and Choy (1998) indicated that over 70% of those undertaking flexible delivery options had average and below-average levels of self-directedness

Another implication for online delivery if barriers are not addressed will be the decline in the development and implementation of online materials and strategies. We are already seeing a subtle shift away from the notion of selling an 'anyhow, anywhere, anytime ...' model to something which fits more within traditional expectations of technical and further education (TAFE) delivery with online learning integrated as a tool within the classroom situation.

Educational strategies

Many authors note the importance of developing good educational design principles which fit within the context of online learners—not merely representing classroom style notes on a screen. They also emphasise the importance of developing an interactive approach which includes and which fits in with learner expectations of the learning process.

Harper et al. (2000, p.19) quotes Oliver, Omari and Herrington (1997) who claim that, ideally, the following factors should be considered when designing online learning:

- ✧ carefully planned group composition
- ✧ requiring learners to provide feedback on their outcomes in order to maintain focus and ensure completion of learning activities
- ✧ introducing learning activities after the learners become familiar with the world wide web environment
- ✧ employing more adaptive forms of scaffolding for selective service.

The types of learners and teachers recruited (or counselled) into online/flexible learning also need careful consideration, as the differences in the learning presentation and process can affect the educational outcomes achievable for both learners and teachers. As Curtain (2002) notes:

> For teachers dealing with external students, the demands are higher than for classroom teaching. The work carried out by the external student is often sporadic ... However, teachers who take on these students find the challenge enjoyable. Flexible delivery teachers are usually a self-selected group and tend to be highly organised and flexible individuals. Their challenge is to devise different ways of managing the students because the external student, in most cases, needs to be managed individually. (Curtain 2002, pp.83–4)

Some of these considerations are reiterated in John Mitchell's report, *The changing Australian markets for VET online*, where he quotes one of his online teaching interview respondents as commenting:

> It is hard to define the capabilities for online developers and deliverers. It is a profession all of its own, at 180° to the normal classroom. You need an understanding of systems, education and technology. (Mitchell 2001, p.14)

Other comments made include the changes deliverers need to make in order to become more effective at online delivery including: relationship marketing, customer relationship management, facilitation and teaching skills, partnership/alliance management, understanding of enterprises' business goals, after-sales service, and maintenance mechanisms (Mitchell 2001, p.14).

Other strategies suggested to improve outcomes for online learning include attracting the appropriate individuals to this form of learning. Mitchell suggests that individuals who would be effective online learners are those who are:

- working adult students
- positive about the benefits of online learning and are self-directed and verbal learners
- who prefer to use online learning in conjunction with other delivery strategies and also like to learn through hands-on practice
- appreciate extra support in online courses such as face-to-face or telephone contact with a teacher
- believe that online learning saves them time and helps them to do their job better
- often use the internet at home for around two hours per day
- sometimes have employees who support online learning and provide access to online facilities at work
- will take advantage of online learning for both short courses and accredited courses
- often would use it to study IT [information technology] courses but could use the medium to study a wide range of different VET courses
- would study more online courses if they were made aware of them. (Mitchell 2001, p.20)

Effective marketing of online opportunities

There is a growing body of evidence about the need for greater sophistication in how organisations identify and move learners into an online learning environment. Much of the Australian work in this area points to the need for organisations to develop e-business strategies and to have sufficient knowledge about market segmentation to effectively stream people into the appropriate sort of learning for their learning styles and needs.

Other comments included the lack of marketing funds in online development areas to ensure effective marketing of products. Mitchell (2001) highlighted the importance of understanding small niche markets and the need to negotiate deals with cable providers such as Austar.

Effective cost evaluation

Many commentators are suggesting that a re-evaluation of course development and delivery, infrastructure and support structure costs needs to take place to give managers a greater understanding about how to market and price online delivery. Some, such as Curtain, even believe that this evaluation needs to take into account learning effectiveness.

> The funding formula needs to take into account learning effectiveness ... if online is more expensive to deliver compared with other more traditional distance education courses, this extra cost needs to be judged against differences in outcomes. (Curtain 2002, p.31)

Methodology

The methodology developed for this project recognises that, while much research had been carried out on online learning, there had been very little exploration or investigation into the attitudes, feelings and responses of the learners, in any more than a quantitative manner.

The research team wanted to explore the online process for participants in online learning, and how the perceptions of and attitudes towards online learning may change over time. Consequently, a methodology comprised of the following elements was developed:

- identifying 15+ learners at three (later four) organisations/sites, and carrying out in-depth interviews with them at the beginning of their course
- carrying out follow-up interviews with these learners approximately six weeks after the commencement interviews to discuss changes in perceptions/attitudes over time
- focus groups with a sample of learners during the first visit to each site, to discuss attitudes, perceptions, difficulties etc.
- in-depth commencement and follow-up interviews with teachers working online
- interviews with organisational stakeholders (chief executive officers/flexible learning leaders)
- collection of operational information and contextual data about organisations and their regions
- identification of up to 12 learners to participate in 'learner diaries'—an exchange of more personal accounts over time with a researcher (via email) about the process of being an online learner.

Stages of the project

Stage 1—development phase

This stage of the project comprised the following elements:

- review of the literature
- establishment of the project reference group
- development of the interview schedules for teachers, learners and managers/directors
- development of focus group questions
- development of online learner diary protocols
- development of case study proforma
- preparation of a paper for discussion of the major issues
- researcher workshops
- development and consultation with external reference group.

A reference group of five people with a range of relevant online and educational research and policy expertise was established. This group has provided comments and input at critical stages of the

project, particularly in the development of research instruments and response to the draft report. (See appendix 1 for letter to reference group participants, and list of reference group members.)

Stage 2—investigation phase

This stage of the project comprised the following elements:

- ✧ focus group interviews with learners and teachers
- ✧ individual interviews with learners, teachers, chief executive officers and flexible learning managers
- ✧ collection of data/background information regarding four case-study sites
- ✧ development of online learner diaries.

Focus groups

In this stage of the project the relevant research could be examined in greater depth. The initial plan was to include learner focus groups and teacher focus groups as part of the data collection process; however, we experienced difficulties in getting representatives of these groups together in one place at one time. The nature of online delivery is such that learners and teachers do not usually congregate in one location. When they are in one location, then they are more likely to be working in a mixed-mode delivery. They were difficult to engage in this context because they were going to be surveyed in 'class time'.

Yet another difficulty was identifying online learners. Institutes do not routinely have ways of identifying mixed-mode or fully online learners. Nevertheless, while no teacher focus groups were achieved, three focus groups of learners engaged in mixed-mode learning were conducted as detailed below:

Table 1: Focus groups

No. of learners	Discipline	Institute	Campus	Month
8	Information technology	Onkaparinga	Noarlunga	March 2002
6	Community services	Onkaparinga	Victor Harbour	March 2002
6	Workplace trainer and assessor	Goulburn Ovens	Shepparton	June 2002

Interviews

Interviews were conducted within three major cohorts in the four participating organisations.

- ✧ teachers engaged in delivering/facilitating online learning (1–2 interviews)
- ✧ learners engaged in fully online or mixed-mode delivery (commencement and follow-up)
- ✧ chief executive officers and flexible learning managers/developers within organisations.

Interviewing at the three levels inside organisations was designed to ascertain not only how online learning was organised, facilitated and utilised, but also to compare the differences, if any, between online learning at the strategic and business planning level, and online learning at the operational level.

The learner and teacher interviews were conducted face-to-face, or over the phone where distance and availability militated against this. The interview schedules were organised around the research questions (see appendices 7 and 8). The intention was to gather data that gave a longer view of teaching and learning online in rural and remote Australia.

The first site visit (conducted between March and July 2002) produced teacher and learner data about attitudes towards online learning and teaching at the beginning of the semester and also included questions about choice of study, expectations and previous experience using information technology. The second site visit (conducted between June and August 2002) was designed to follow up and validate learner/teacher experience and findings at the end of the semester and to gain an understanding about how perceptions and experiences had changed over time.

There were difficulties in re-engaging with learners during the second site visit and the weeks that followed. Some learners and teachers were unavailable, even over the phone. Learners had, in some cases, withdrawn from their courses, others had completed their courses, while some had opted not to disclose their contact details during the first interview and were therefore not able to be re-contacted.

Some staff were also difficult to locate, having finished their delivery or left the institute. Wherever possible, follow-up data were collected. Again this is a reflection of the volatility and implicit flexibility of the medium of online delivery which had to be accepted and accommodated by changes to the methodology.

In total, 46 learners were interviewed, predominately face-to-face, from the four institutes across 12 program areas. Twenty-one of these learners were re-engaged in second-round interviews. Twenty-three teachers were interviewed from the four institutes across 14 program areas, of which 16 were re-engaged in second-round interviews. Learner and teacher details are included as appendix 12.

Table 2: Management interview matrix

Position	Month	Institute
Director	June 2002	Onkaparinga
Principal lecturer, flexible learning	June 2002	Onkaparinga
Director	March 2002	Tropical North
Flexible learning manager	March & June 2002	Tropical North
Manager of IT services	June 2002	Tropical North
Developer	June 2002	Tropical North
Director	June 2002	Goulburn Ovens
Flexible learning co-ordinator	May 2002	Goulburn Ovens
Director	August 2002	Wodonga
LIRNspace* Manager	August 2002	Wodonga

Note: * LIRNspace = 'Learning innovations and resource nexus'

Online learner diaries

Learners approached at the four sites were asked to participate in online diaries with a researcher, to discuss how the process of online learning was unfolding over time. The researchers explained the way in which the electronic diaries were to be used with teachers, who then suggested likely participants. Many learners we approached were reluctant to commit to this exercise, seeing it as yet another obligation. We had anticipated a more enthusiastic response, thinking that learners would see the exercise as a way of exploring and reflecting on their learning.

The learners who did agree to participate were subsequently contacted electronically, or in some cases, by phone (due to technical difficulties) and encouraged by the researchers. They were provided with clear guidance about the kinds of information required. (A copy of these documents appears in appendix 9.) The communication tone was friendly, supportive and conversational. While 13 diarists commenced the process, only eight persisted with the exercise, with three learners making no response at all. Follow-up emails were sent to those learners who did not persist, without positive results. Details of the diarists are given in table 3.

Table 3: Online diarist matrix

Diaries	Discipline	Date commenced	Status	Institute
1st Cohort				
Diary 1	Pre-vocational	26 April 2002	Completed June 2002	Onkaparinga
Diary 2	Information technology	26 April 2002	Completed June 2002	Onkaparinga
Diary 3	Information technology	26 April 2002	Inactive	Onkaparinga
Diary 4	Pre-vocational	26 April 2002	Inactive	Onkaparinga
Diary 5	Nursing	26 April 2002	Completed June 2002	Tropical North
Diary 6	Nursing	26 April 2002	Completed June 2002	Tropical North
Diary 7	Nursing	26 April 2002	Completed June 2002	Tropical North
Diary 8	Nursing	26 April 2002	Inactive	Tropical North
2nd Cohort				
Diary 9	FMI*	12 August 2002	Completed September 2002	Tropical North
Diary 10	FMI	13 August 2002	Completed September 2002	Tropical North
Diary 11	OH&S	14 August 2002	Inactive	Wodonga
Diary 12	Hospitality	14 August 2002	Inactive	Goulburn Ovens
Diary 13	Workplace Train & Assess	14 August 2002	Completed September 2002	Goulburn Ovens

Note: * FMI = Frontline Management Initiative

Because learner diaries were so difficult to commence and sustain, the impact of these data changed. They did, however, provide another insight into the research questions, but not in the way the research team had originally intended. The entries were analysed in terms of their contribution to the research questions. In most cases they did not provide the substantial longitudinal experiences of online learning that we had hoped for in the initial project design.

Case study information collection

The development of organisational profiles allowed us to develop a picture of what each organisation was attempting to do in terms of:

- ✧ servicing the particular needs of its communities
- ✧ developing and supporting a flexible and online learning capability.

It also allowed us to see how the regional situation and the political (state) context impacted on planning and service delivery, particularly in relation to online and flexible delivery.

Methodological outcomes

Interviews

The interviews were semi-structured. The questions developed by the research team served as the launching pads to new lines of questioning, thereby allowing the researcher to follow new lines of discussion. The new lines of discussion developed legitimately from researcher experience and knowledge of the area informed by the current literature.

Case studies

For all of the reasons outlined above, the results from the project were initially collated and analysed using a case-study approach based on a triangulation of data across sites and over time.

The case studies reported in the project allowed the data from the teacher and learner interviews to be seen in context, and enabled cross-institutional comparisons to be made. The interviews provided a broader institutional picture from the stakeholders. The online diaries added yet another dimension to the analysis. This 'collective case study method' (Stake 1995) provided data on what is happening across Australia and encouraged the researchers to identify similarities and differences between sites and develop organisational and strategic models which capture the diversity of provision of online learning in rural and remote Australia. The process of writing up the case studies was descriptive and organised around these themes. The themes or questions were both 'etic' and 'emic' (Stake 1995); that is, they came 'in from outside'—from the literature and researcher experience and expertise in the field; and from the 'inside'—from the responses of those people contributing to the data collection.

Constraints

The problems encountered during the course of this research project are similar to those raised by other National Centre for Vocational Education Research (NCVER) projects in this field. (See Brennan 2003; Cashion & Palmieri 2002; Choy, McNickle & Clayton 2002).

The volatility of the area being researched is accepted as part of the territory. The problems themselves tell us a lot about teacher and learner behaviour in an online environment. The specific difficulties encountered by the researchers included:

- the lack of available institutional data on the numbers and contact details of learners studying online and the accompanying privacy issues that prevented the release of contact information
- attrition of both learners and teachers between site visits
- confusion in the minds of teachers and learners about what constitutes online teaching and learning
- flexible patterns of enrolment and completion, meaning that learners were at very different stages of their courses, making comparisons across cohorts difficult
- relatively low numbers of identifiable online learners in all participating case-study organisations
- changes of staff involved in online delivery
- difficulty in engaging learners to commence and participate in online diaries
- characteristic lack of persistence demonstrated by the online diary participants in spite of a significant amount of electronic encouragement.

These constraints resulted in modifications to the original methodology. In particular, the decision to concentrate on the attitudes, opinions and reactions of teachers and learners in the context of their own institutional sites was a response to the low numbers of available online learners. The learner and teacher questionnaires originally proposed were reworked and the project team elected to carry out additional online learner diaries. This gave the research project a much more qualitative flavour.

The modifications to the methodology generally and the decision to concentrate on collecting contextual information were also made on the basis of researcher expertise and the literature. The research team members met, analysed and synthesised the available data from the site visits, confronted the methodological problems and 'value-added' to the project on the basis of their experience, not only with research but with the content area being researched (Limerick, Burgess-Limerick & Grace 1996).

Summary

The difficulties of data collection in the online environment proved to be more problematic and complex than originally envisaged. The researchers involved in the project brought with them considerable research experience and expertise in the area of online delivery, with a particular focus on the regional and rural contexts. The original methodology and the modifications made to it reflect this expertise and also reflect what we know about online delivery and its unpredictability.

Organisational profiles

This chapter describes the four regional VET providers selected for study.

Tropical North Queensland Institute of TAFE

Tropical North Queensland TAFE consists of eight campuses, servicing all of Far North Queensland. Training delivery areas include adult learning, Aboriginal and Torres Strait Islander studies, business, community services, fashion, art and music, rural and horticulture studies, information technology, tourism, hospitality and travel, and trades and technology. In 2002, Tropical North Queensland TAFE offered 238 courses and short courses. Enrolments for 2001 totalled 15 856. Of these, 670 enrolments were for partially or wholly online courses across the diverse areas of aquaculture, certificate 3 in business, frontline management, information technology, nursing, tourism and hospitality, and workplace assessment.

The primary campus and central administration is located in Cairns. The campus also has a childcare centre, multimedia laboratories, trade workshops, a fashion design studio, art studios and galleries, a comprehensive library, industry standard kitchens and restaurants, music performance spaces and a flexible learning centre housing 45 computers. Services available to learners include disability support, employment services, international learner support, learning support and learner counselling. Postal library services are available to remote learners at no cost to the learner. The Cairns region has a population of approximately 130 000, more than half that of the Far North Queensland region which has a population of approximately 222 500.

The Atherton campus services the needs of the Tablelands, with a focus on business and office skills, collaborating with the community to provide work experience for its learners. Atherton campus has a flexible learning centre with ten computers. Atherton is a town of approximately 4200 people, located 131 km west of Cairns and is the central town of the agriculturally diverse tablelands.

Bamaga is a small Aboriginal community 923 km north of Cairns. The town is connected to Cairns via plane and boat (every 10–12 days) and is prized for its accessibility to Thursday Island. As a specialist remote centre, the Bamaga campus offers a variety of courses to residents and industries of the Cape Region.

Innisfail is located along the Cassowary Coast, approximately 93 km south of Cairns. With an approximate population of 8000, Innisfail has been a sugar town since 1880 when the Roman Catholic Church started the first plantation. It is also Australia's only tea plantation region. The Innisfail campus is the centre for tropical aquaculture, rural management and extractive industries training. The Innisfail campus houses the second largest flexible learning centre of the institute with 30 computers.

The Mareeba campus, like the Atherton campus, focusses on business and office skills as well as farming. Mareeba, located 68 km west of Cairns, is the largest town of the Tablelands with an approximate population of 6400. Industries in the region include cattle yards and meatworks, a

sawmill and rice and coffee plantations. The region is also a significant tobacco producer, contributing approximately 40% of the national yield.

The Mossman campus is nationally recognised as a specialist in the delivery of heritage and interpretative tourism. The township of Mossman, 79 km north of Cairns, has a population of approximately 1600 and is the centre of Far North Queensland's sugar industry.

The vocational education and training needs of the Torres Strait region are catered for by the Thursday Island campus. Playing an active role within the community, courses offered by the campus include: art; business; carpentry; computing; early childhood education; engineering; jewellery; sports and recreation; and tutoring. The flexible learning centre at the Thursday Island campus houses two computers. Thursday Island, located 929 km north of Cairns, is the administrative centre of the Torres Strait Islands. The 20 islands of the Torres Strait have a population of about 25 000, with the predominant industries being fishing, prawning and pearling.

The Tully campus provides training according to community need—in business, hospitality and information technology, and is home to a flexible learning centre with two computers. Tully is located 148 km south of Cairns with an approximate population of 2800. It is the wettest town in Australia and primarily services banana and sugar cane farms.

Onkaparinga Institute of TAFE

South Australia's Onkaparinga Institute of TAFE, along with South East Institute of TAFE, services the vocational education and training needs of the state's south-east region, from the Adelaide Hills to Kangaroo Island and Pinnaroo. Onkaparinga delivers across 16 educational program areas from five campuses and two learning centres. In 2001, the institute had 13 234 enrolments, with 488 courses being offered during 2002. Student services include counselling, learning support, and employment referral.

A strategic alliance between Onkaparinga Institute and South East Institute was developed to foster the values of professionalism; ethical, sustainable and prudential business; customer-focussed delivery; and honesty and integrity. The strategic priorities of the alliance for 2001–2004 are in the areas of commercialisation, marketing, sales, people development and flexible learning. The specific goals related to flexible learning are increased availability of flexible delivery options and increased enrolments in flexible delivery (5% per annum over 3 years).

The primary campus of Onkaparinga Institute is located at Noarlunga Centre. The campus offers modern information technology suites, a public library, an independent learning centre, engineering and building workshops, a hairdressing school, a hospitality training restaurant, a videoconferencing suite and a music centre. Study programs offered from Noarlunga include: Aboriginal education; building and furnishing; business services; commercial music; community services; cookery; English as a second language; graphic design; hair and beauty; information technology and multimedia; mechanical engineering; tourism; women's education; and vocational preparation. The City of Onkaparinga has a population of 144 878 and is located 31 km south west of Adelaide.

O'Halloran Hill campus manages a number of specialist statewide programs, including spatial data systems, geoscience, industrial textiles fabrication, heavy vehicle mechanics, and geographical information systems. Other program areas delivered from O'Halloran Hill include vocational preparation, small business management, apparel, visual arts, electrical engineering, childcare, contact centre operations and viticulture and wine studies. A learning resource centre, childcare centre, videoconferencing suite, gymnasium and gallery are among the facilities available at O'Halloran Hill. O'Halloran Hill is part of the City of Onkaparinga, with a population of 2830.

Servicing the needs of the Adelaide Hills, Mount Barker campus has a learning resource centre, a childcare centre and a videoconferencing suite and delivers programs in business services, small business management, information technology, aged care, tourism, visual arts, horticulture, community services, women's studies and vocational preparation. The district of Mount Barker, 58 km north east of Noarlunga campus, has a population of 23 000.

The facilities at the Murray Bridge campus include computer and video conferencing suites, automotive and metal fabrication workshops, a horticultural learning centre and learning resource centre. Programs are offered in Aboriginal and women's education, horticulture and rural studies, vocational preparation, tourism, business services, forklift and community services. In addition to these programs, the campus delivers statewide agricultural programs for the sheep, poultry, pig and cereal industries. Murray Bridge is located 96 km east of Noarlunga campus and has a population of 16 664.

Onkaparinga Institute has two learning centres located at Kangaroo Island and Pinnaroo. Each of the learning centres provides courses at the request of the community and industry. Examples of previously requested programs include farm skills for women, introduction to computing, cooking, rural studies and Microsoft Access. Computer and videoconferencing suites are facilities common to each learning centre. Ferries from Adelaide and Cape Jervis connect Kangaroo Island with the mainland. Kangaroo Island has an approximate population of 4373. The Southern Mallee district council in which Pinnaroo is situated, has an approximate population of 2258 and is 272 km east of Noarlunga. Industries of the Pinnaroo region include construction, manufacturing, wheat and potato farming, irrigation and sheep for wool and fat lambs.

Goulburn Ovens Institute of TAFE

Goulburn Ovens Institute of TAFE, based in Shepparton, Victoria, with campuses to the south in Seymour and to the East in Benalla and Wangaratta is dedicated to the expansion of flexible learning. Strategically the institute intends to:

- integrate information technology practices in program delivery options
- support the development of 'online' program/course resources to meet customer needs
- provide all clients with access to a range of teaching delivery methodologies and options.

In order to achieve these goals the institute will ensure that the technology infrastructure effectively supports learners' learning needs. Approximately 18 000 learners were enrolled during 2001 with 384 courses being offered across 15 program delivery areas. The institute services an approximate population of 90 600 through its eight campuses and six open learning centres.

The primary administrative campus is located in central Shepparton. Fields of study offered through this campus include: sports and recreation; hospitality and baking; migrant education; media arts; Koori education; health, social and community services; food industry; engineering; electrical and electronics; community and general education; business studies; building construction; and automotive. Facilities at the campus include a learning resource centre, videoconferencing suite, childcare centre and training restaurant. Shepparton is part of the Goulburn Valley, located approximately 180 km north of Melbourne with a population of 57 000. Shepparton has a strong agricultural base, primarily in the diary and fruit industries. The major secondary industries within the region include food processing, transport and manufacturing.

The William Orr campus, situated on the outskirts of Shepparton, offers courses in agriculture and horticulture, building construction and plumbing. A 40-bed hostel, computer lab and library access are among the facilities available at the campus.

The Seymour campus is 86 km south of Shepparton. Courses are offered in business studies; community and general education; health, social and community services; disability access; agriculture and horticulture; and hospitality. The Seymour campus also offers childcare and videoconferencing facilities. Seymour has a population of 3600, and local industries include sheep, beef and mushroom farming, timber processing, viticulture, tourism and stud and racehorse breeding. The area also boasts abattoirs and the Puckapunyal Army Base.

The Benalla campus, 62 km east of Shepparton, offers courses in multimedia and information technology, health, social and community studies, community and general education, hospitality, and business studies. Benalla's population is 9000, and industries include tourism, hard and softwood timber processing, and munitions manufacturing.

Wangaratta has three campuses. The main one, Docker Street, offers hospitality, media arts, engineering, community and general education, building construction, automotive, business studies, electrical and electronics, health, social and community studies, and sport and recreation. Student facilities include a library, cafeteria and computer laboratories. The specialist campuses at Wangaratta are Christensens Lane Campus, which specialises in equine studies, and the Park Lane campus, which provides foundation skills training in horticulture, agriculture, animal sciences, chainsaw studies, viticulture and environmental sciences. Wangaratta is 101 km east of Shepparton, with an approximate population of 18 000. Industries in the region include light manufacturing, clothing, textile, computers, viticulture, wheat farming, sheep for meat and wool, and cattle farming.

The institute's Bright office, 177 km south east of Shepparton, offers specialist courses based on community demand. Courses include first aid, aged care, information technology, video and television production, accredited alpine technician training, horticulture and hospitality. Bright also has an open learning centre. Bright has a population of 3000 and industries include tourism and a range of primary industries, such as fruit, berry, tobacco, lavender, cattle and trout production.

Open learning centres are located throughout the Goulburn Valley and north east regions in Bright, Myrtleford, Cobram, Kilmore, Kyabram and Puckapunyal. Facilities available at these centres include computers, photocopiers, fax machines, internet and phone services.

Wodonga Institute of TAFE

Wodonga Institute of TAFE, located near the border of Victoria and New South Wales, on the Victorian side, services the vocational education and training needs of Wodonga and the surrounding settlements, and also delivers into some parts of southern New South Wales, including Albury. Wodonga is situated 300 kms north of Melbourne alongside the Murray River and encompasses a greater regional population of 100 000. Industries in the region include food processing, textiles, paper, plastics manufacture, meat processing, timber growing and milling, and dairy, sheep, grain and cattle farming.

The Wodonga campus is the principal campus of the institute. Courses are delivered in agriculture and horticulture, business studies, architectural and timber studies, child studies, engineering, community services, fabrication and welding, electrotechnology, fitness, sport and recreation, hospitality, health, general and work education, information technology, industrial skills training, Koori education, media, tourism, management and communication, and science, food and technology.

Wodonga Institute of TAFE is the fastest growing technical and further education (TAFE) provider in Victoria, and is the 2002 Victorian Training Provider of the Year. The institute enrolled approximately 10 000 learners in 2001, and in 2002 it offered 383 courses across 20 course areas, delivered via the Wodonga campus and two regional training centres. Wodonga Institute also offers

over 40 courses via distance learning and provides workplace delivery at several sites along the Murray River in Victoria and New South Wales.

The institute is currently developing a LIRNspace or 'learning innovation and resource nexus' to meet the changing needs of learners. The LIRNspace will incorporate a multimedia 'project factory', flexible teaching areas with videoconferencing capabilities, 130 plus computers, extended hours swipe card access, helpdesk and links with the institute and external libraries. Other services available to learners include a multi-sector library, shared with LaTrobe University.

The two training centres—located 89 km south east of Wodonga in Mt Beauty and 120 km east of Wodonga in Corryong—provide rural learners with an opportunity to engage in vocational education and training. Fields of study offered through these centres include industrial training, horticulture, welding, aged care and information technology. Courses/programs are available according to community need.

Among the strategic difficulties currently driving the institute are commitments to:

- ensure that education and training options are appropriate to regional needs
- develop and promote a flexible learning environment
- encourage and support innovative approaches to educational program development.

These directions have provided impetus to the institute's support for online learning, including participation in the development of the TAFE Virtual Campus in Victoria.

The management view

The research team's aim in speaking with chief executive officers and flexible learning managers was to establish the nature of the strategic objectives and purposes of online learning within organisations, and compare these to the actual experiences of the learners and the understandings and practices of the teachers. The team anticipated that these respondents would articulate the vision and aims of the organisation, in terms of developing an online teaching capability. They would also be able to indicate the extent to which they understood the level of progress within the organisation, what the issues were, and what they were doing to address the issues.

Online learning as a business strategy

Questioning of the chief executive officer and the flexible learning manager in specific organisations gave the impression that the implementation of flexible learning (and, in particular, online learning) was not currently a major part of the business strategy for the organisations in this study. This seems to be related to factors such as:

- the infrastructure difficulties inherent to effective implementation
- problems with access to skilled staff
- difficulties in providing existing staff with the requisite skills to enable them to conduct new/developing programs
- the lack of understanding by those responsible for the development of policy and platforms at a state level, of the realities of the information and communication technology situation in rural and regional Australia.

Managers seemed to be identifying online delivery 'stand alone options' as representing a major move away from core business. They appeared to remain unconvinced that either learners or teachers saw it as a viable learning alternative.

Educational strategies

Many of those interviewed saw online delivery as part of the educational commitment to being within, and part of, their regional area of operation. They believed online delivery:

- is a way of getting to remote learners and providing them with the tools to access a greater diversity of learning options
- gives learners the opportunity to experience a different range of subject areas, in addition to developing new technology-related skills
- is not a mode that suits everyone
- must be supported at least as well as traditional delivery
- should, in many cases, be developed inside a mixed-mode delivery model.

Socio-cultural

Flexible learning managers and chief executive officers placed a strong emphasis on the value of providing options for people within their communities. They talked about helping communities to stay together and about developing pathways and opportunities. They also mentioned the needs of seasonal, and very isolated workers, for whom online learning can form a link representing continuity. One interesting observation was that learners and communities may see online learning as 'less serious' and that communities may therefore not place a high value on it. Alternatively, some saw online learning as a means of both reaching across remote areas and alleviating isolation and increasing the social dimensions of learning.

Flexibility

Flexibility was cited frequently as a 'perceived' benefit of online learning for teachers and learners, but particularly for learners. This benefit is expressed in terms of allowing people to stay in their own regions, or to maintain their links with other responsibilities such as families and work. Online learning may also improve flexibility for people who work in particular industries (for example, tourism, primary industry). It was also seen as affording the organisation some flexibility, in that they can keep their materials in one place, update them regularly and allow easier access for other staff and learners.

Barriers

Flexible learning managers and chief executive officers did not see online learning as a cost-cutting exercise, and appeared well aware of the issues involved in implementing it. These included home access for teachers, solving industrial relations issues, looking for new ways to value, maintain and replace infrastructure related to information technology services etc. Amongst the most frequently mentioned barriers were:

- telecommunications and bandwidth issues, resulting in long download times and inaccessibility during business hours
- technical barriers (knowing what software to use, having appropriate hardware)
- skills deficits (for teachers and learners)
- keeping equipment up to date
- learner readiness
- literacy and comprehension issues
- slow teacher adoption and adaptation.

Teacher findings

In the methodology section it was indicated that the initial intention had been to focus primarily on the experiences of learners in order to glean information about the positive and negative aspects of their online learning experience. The intention was then to juxtapose these experiences and views against those of the teachers/facilitators to see if they could provide insights into the experiences of the learners, particularly those aspects of the online learning experience which the learners had either not identified or could not articulate/distinguish.

What actually occurred in the field made some changes to this initial methodology essential, including increasing the numbers of teachers originally intended for surveying.

Once inside organisations, it was found that even if there did not appear to be great numbers of learners currently studying online, there were many teachers who had experienced online learning from a teacher's perspective, even if the experience had been only a brief 'glimpse'. Further, it was found that teachers were enthusiastic to share their experiences and their perceptions about why they took on the challenge of teaching online, and how they thought that experience had been realised for the learners.

Many teachers who had been involved in online learning as program/content developers were identified, as well as several whose experience resulted from their participation in organisational/professional development programs.

Teachers were asked to reflect on their experience in teaching and communicating with learners online. In particular, they were asked to reflect on the mode of learning itself, and the different ways it can be (and is) applied, the organisational context they work in, and how they thought learners fared with this mode.

The teachers interviewed had had varied experiences with the use of technology for teaching and learning, including one who had been working with computers since 1996, through to those who had had very little experience at all. The diversity and range of responses was therefore quite remarkable.

How these teachers came to online delivery

While the questions about how teachers came to be delivering online did not provide an insight into the 'types' of teachers being attracted to this delivery mode, the reasons given for teacher involvement in online delivery included:

- small numbers of learners in a course or module (sometimes towards the end of a module)
- the convenience and lifestyle suitability of online delivery
- choice of online meant that they could create greater access for those learners separated by distance from the physical teaching site
- the 'intrinsic motivation' of the medium—the way in which they could 'get the students to do the work'.

Were the practitioners *really* attracted?

For many practitioners, online was *not* their preferred mode of teaching. Why not, we wondered? The reasons they offered were related to such things as:

- perceptions that their learners disliked this method of teaching and learning
- opinions that learners would learn best in a mixed mode (where face-to-face teaching was supported by the availability of online exercises and resources)
- communication with learners was more restricted in an online environment, creating a sense of distance and isolation that was not contributing positively to the learning
- low levels of information technology literacy and general literacy amongst learners contributing to problems for learners (slow learners were 'behind the eight-ball' in an online environment)
- access and equity issues inhibited some learners' progress on a number of levels, including language and literacy, online access, and access to equipment
- achievement of flexibility, parallel to the learning experience being customised and contextualised for effective learning experiences of learners.

How the learners fared

Teachers were asked to comment on how they thought learners would benefit from studying online and to what extent these benefits were realised.

Teachers were initially optimistic that online learning could deliver a range of benefits, including increased information technology skills, convenience, better access, interaction, better quality and more current resources, and the development of problem-solving skills. They felt that these goals had generally been realised.

They also felt that it would be a positive experience for their learners by providing:

- a necessary exposure to the technology
- the excitement of another teaching/learning mode
- greater learner flexibility (by virtue of the medium)
- the capacity to cater for a range of learner needs
- the creation of access for some learners.

As a qualifier to these positive aspects, teacher respondents recognised that the relative levels of learner information technology skills was a strong determinant for the level of learner involvement in the learning process and thus, an effective online learning experience.

Communication tools

Teachers were very focussed on communicating effectively with their learners and used a variety of modes and combinations of modes, including email, bulletin boards, chat rooms, telephone and facsimile.

Projected and realised problems with online learning

Teachers were asked to comment on the negative aspects of online learning that they had considered *prior* to delivery and the extent to which these perceptions had been confirmed or refuted by their learners' experiences. Practitioners expected learners to have problems with time management, particularly with procrastination in commencing tasks.

They were also concerned that the learners would not have the information technology skills to cope, and that the technology itself would let learners and staff down. They felt that the extent of teacher induction to use the technology effectively was not sufficient to guarantee confidence, and that the support needs of learners could not be met. They also noted that the absence of class interaction and their inability to respond to learner questions immediately would be a disadvantage.

The teachers were then asked to comment on the extent to which these projected negatives had turned into reality. Problems such as the inadequacy of the learner technology, the speed of the phone lines and the low take-up rates of online courses had dampened their enthusiasm a little and in some cases had caused major disruption to provision. Further, while many of the projected problems have been realised, teachers have put in place some strategies to minimise any possible negative effects and to increase learner retention.

These strategies include:

- ✧ providing greater levels of learner support and initial guidance
- ✧ screening learners to establish levels of information technology ability
- ✧ using chat facilities more extensively to overcome a sense of isolation amongst learners.

Other problems teachers were not able to plan for or overcome, included poor levels of technical assistance available to learners, learners' lack of time-management skills, and general technology failures, all of which contributed to the realisation of many of their initial fears regarding the online delivery mode.

The barriers to online learning

For most teachers, issues were not generally related to academic support online. Where these issues did arise, however, teachers focussed on providing more staff, mentoring learners, and providing direct learner support services. Similarly, most teachers did not believe learners had difficulties with the online resources. Those who did think this was an issue suggested that clearer presentation of the materials would assist learner learning. Some teachers recognised that learners had problems with the technology itself. These problems included the lack of technical skills, the slow speed of the technology and issues regarding the cost of access. Teachers suggested that these problems could be overcome by improving learner induction processes, providing more extensive learner support, and providing a wider range of delivery options for learners to choose from.

Specific issues identified as being barriers to effective online learning included:

- ✧ lack of co-ordination between institutes of TAFE across Australia, resulting in resource replication and time wastage
- ✧ the over-enthusiasm of course developers
- ✧ slow uptake rates
- ✧ poor quality sound and video streaming
- ✧ ill-matched information technology skills amongst the learner cohort
- ✧ learner styles and preferences that do not match the demands of the technology
- ✧ lack of technical support
- ✧ internet connection costs
- ✧ limited access to appropriate technology.

The strategies teachers suggested to overcome these barriers focussed once again on the importance of learner support, the availability of various study options, and the assessment of learner suitability

for online learning prior to enrolment. Only a limited number of teachers hypothesised about the consequences of not addressing these barriers. Those who did felt that if the barriers were not overcome, then the consequences would be:

- ✧ technology problems leading to high dropout rates and learner frustration
- ✧ time management/motivational problems leading to slow learner progress and possible attrition
- ✧ learner style mismatches leading to reconsideration of the mode of learning best suited to their preferences and styles.

Technology as a barrier

Approximately half the teachers interviewed felt that learners were having problems communicating online. They reported that these problems were associated with:

- ✧ lack of technology skills
- ✧ problems related to expression
- ✧ absence of class colleagues to chat with (lack of peer group interaction)
- ✧ literacy problems
- ✧ unstable technology.

Again the strategies suggested to overcome these barriers included more extensive face-to-face induction, more contact and communication with teachers and more input from learners on their needs.

Barriers for beginners

Teachers overwhelmingly thought those problems which learners confront early in their online learning courses and modules were highly varied. Many of the suggested solutions included a more concerted focus on induction programs, provision of hard-copy materials and more technical support to beginner online learners.

Time-management barriers

Teachers reported that learners generally have difficulties with managing their time when participating in online learning. This could be attributed to the competition with outside pressures, a lack of intrinsic motivation, inexperience as a self-directed learner and the slow and sometimes unreliable speed of the technology. The strategies they suggested include:

- ✧ enrolling in only one module at a time
- ✧ regular contact and support with teachers and learners
- ✧ explicit teaching of time-management skills
- ✧ clear guidelines about assessment submission dates.

Summary of the first interviews

The majority of teachers interviewed had limited online teaching experience and they were therefore using technology as a communication tool or as a web-based searching and researching resource. The main benefits for learners were considered to be in providing access, allowing learners to finish courses flexibly, developing learners' information technology skills, and the provision of maximum learner choice.

Most teachers preferred to achieve a mix of online and face-to-face teaching and felt that this suited the needs of their learners best. Where this was not possible, teachers continually reiterated the need for appropriate levels of learner support, induction programs and assessments of learners prior to enrolment to assess their levels of information technology skills.

The second interviews

The researchers were interested to find out what (if any) modifications had been made to the online courses since the first interviews took place. They were also interested in the levels of learner persistence and attrition, and how teachers were accounting for this.

Learner motivation

A number of teachers mentioned difficulties that they were having in sustaining their existing online courses. This was because learners were finding it difficult to maintain their original motivation. Some of the reasons teachers thought motivation may have been difficult to maintain included:

- learners finding employment (and leaving the course)
- computers not available for learner study at TAFE
- learners electing to go 'paper based'
- no new enrolments, creating low numbers of peers in course
- learners 'dropping off the radar', with no specific reasons given.

Changes to course components

Approximately half the teachers had made modifications to the course content and style of delivery in response to their perceptions regarding learner satisfaction and in response to direct learner feedback. These modifications included abandoning some online editing processes, adding more structure to chat facilities, changing course content for reasons of currency, assessment refinement and improvements to the presentation of materials.

Changes to course offerings

Most teachers had not added any extra online courses or modules to their workloads since the first visit. They reported that their workloads were already extremely intense and that they had no space for any more.

Online as a delivery medium

During the second visit teachers reiterated their preference for a mixed mode of delivery that blends face-to-face instruction with online support. The reasons given for this opinion included:

- technology is thought of as only a 'tool'
- the lack of learner–teacher engagement achievable in an online environment
- learners' expressed dislike of fully online learning
- lack of contact with learners resulting in learner tracking difficulties.

Teachers were asked if the experience of online learning had changed for their *learners* over the period between visit one and visit two. Most felt that the experience had changed and that learners had become more comfortable and confident with the medium. Most of the teachers maintained their original forms of contact with learners but felt that both parties were 'getting better at it'.

Benefits of online learning

Teachers reported that online learning had been beneficial to their learners in a number of ways. Their learners had developed more sophisticated technological skills, had access to a wider range of resources and, in some cases, learners had become more self-managing regarding their time and their learning. The majority of teachers said that convenience and flexibility were important factors for learners accessing online learning. The only qualifier to this enthusiasm was that learners' personal 'home' technology might compromise speed and ease of access.

Improvements

Teachers were asked to comment on what they thought their learners would see as the areas of online delivery most in need of improvement. Their answers fell into the following categories:

- *technical:* modem speed, downloading times, password problems, platform restrictions and the speed of video streaming
- *materials:* contextualisation of materials and presentation of materials
- *organisational:* contact with teachers and feedback.

Negative aspects identified by learners

When learners were surveyed initially they identified a number of negative aspects related to online learning. Teachers were asked to comment on the extent to which they thought their learners experienced these 'negatives':

- Confusion/delays caused by not communicating face-to-face. Most teachers who work only in an online environment felt that this was a real issue for their learners. Where face-to-face support was available this was much less of a concern.
- Isolation was a problem for those learners 'working solo'.
- Time consumption/management as an issue for learners was equally divided between positive and negative responses. Technological delays became the most time-consuming aspect of 'getting online'.
- High levels of self-discipline are required to succeed in the online learning environment and learner motivation needs to be high and intrinsic if learners are to succeed.
- During site visit one, learners indicated that response times to educational and technical questions were too slow and teachers accepted that this was a problem. However attention needs to be given to teacher work patterns and learner expectations of 'an instant response'—an unsustainable and unrealistic expectation.

Summary

The major current concerns/opinions of teachers are summarised by the following points:

- Teachers were clear that no extra courses or modules should be added to their workloads.
- The need for mixed-mode delivery had been confirmed for teachers by their recent experiences.

- ✧ Online learning experiences were sufficiently positive and developmental for most of the learners currently participating in online courses, so it was important to retain online learning opportunities.
- ✧ The convenience and flexibility afforded by the medium were still seen as great advantages for learners (even though much of the teaching and learning was highly integrated).
- ✧ Online learning opportunities contributed significantly to learners' proficiency in using the technology.
- ✧ Some felt that the use of online learning had encouraged learners to become more self-directing and self-managing.
- ✧ Learners require high levels of self-discipline and motivation if they are going to succeed with online learning.

The teachers added thoughtful comments to the interviews. A number referred to the future benefits of online learning and the changes that have to be made to ensure improved learner outcomes. These included changes to content and a more sensible approach by management to the allocation of staff time to develop, administer and facilitate online learning. Some teachers felt that management embraced the use of technology in an uncritical and passionate way with little consideration of the views of teachers or learners. One 'wishes to debunk the myth that online learning is great for remote learners' and maintains that it works for remote teachers but does not accommodate the learner needs for group interaction.

There was a general sense of continuous improvement and action learning embedded in the teacher comments and discussion about their practice, and about the way it was received and responded to by learners. The difficulties faced by many online learning practitioners seemed to be associated with finding the time to reflect on their practice and discuss it with other teaching professionals, both inside their own organisation and with professionals in other organisations. Much learning and practice improvement seemed to be taking place at fairly high cost to the individual, without a sense of improvement in the systems more broadly.

Learner findings

Field research preparation

As learners were the principal focus of this research project, the research methodology anticipated finding large numbers from which to select subjects inside organisations. This proved not to be so. Fortunately however, we had not made decisions about how strictly we would apply the definition about what constitutes an online learner, which gave us some much needed flexibility. We had also not made any decisions about what we wanted our online learners to be studying. Again, this was fortunate, because once inside organisations, we found that:

- Online learners were reasonably invisible inside the organisations we visited.
- Organisations had no standard way of identifying online learners.
- Learners were mainly studying in 'mixed mode', rarely online as a stand-alone option.

A further problem the researchers experienced was the difficulty in re-engaging with our research subjects a second time for the follow-up interviews. The methodology did not anticipate how difficult it would be to locate the learners for a second in-depth interview, and while every attempt to track learners and re-engage with them was made, either in person or via phone interviews, the very nature of the learning process, the type of learners attracted to the medium and the flexible nature of the learning made it difficult to physically locate the learners a second time. This reduced the capacity to generate reliable comparisons between first and second-round data.

The interviews asked questions in three major categories:

- previous learning experience and achievement—to ascertain, if possible if there were any 'types' of learners particularly attracted to the medium
- the perceptions learners had about what it would be like to be an online learner
- what the actual experience was like.

First-round interviews

Forty-six first-round interviews were carried out with learners who were drawn from regional areas in the vicinity of their provider institute. The age groups were well spread, as were previous educational achievements.

Learner backgrounds

Learners were asked about their previous learning experiences, including their highest educational achievement, their experiences in undertaking distance education and why they wanted to undertake this course/study option.

The first-round interviews revealed a highly diversified group of participants in terms of levels of previous education:

- degree, diploma or certificate (15)

- <Year 12 (15)
- Year 12 (9)
- post-school trade (5)
- not defined (2).

The wide spread of educational experiences indicated the likelihood of a wide range of learner needs and also a number of diverse notions about what it means to be an adult learner.

Significantly, most learners had not previously participated in distance learning. Many had used simple communication tasks (such as emailing and chatting), but very few had used it as an educational access medium.

Courses studied

The range of courses being studied by those interviewed was also highly diverse—from Australian Qualifications Framework certificate level II through to diploma level, and subjects studied, including:

- occupational health and safety
- information technology
- nursing and community services
- business and management studies
- education/workplace trainer and assessor.

The application of the online teaching and learning experience was the most interesting aspect of the initial stage of the study. We found very little practice in the area of fully online, fully 'flexible' learning. What most learners were doing online was accessing components of learning resources, checking administration issues/requirements, and communicating with teachers/learners. Many learners interviewed were from institutes that only offered specific components of courses online, rather than entire qualifications.

Reasons for studying

The predominant reason learners were undertaking study was to gain employment and employment-related skills. The specific reasons included that:

- Study was a work requirement.
- It was to help them change career.
- It would improve their job skills.
- It would enable them to get a job (or a better job).
- It was a prerequisite to get into another course of study.
- It was for personal development.

Why online study was chosen

The majority of learners indicated that they had not had a choice of study mode, and were compelled to undertake a component of their course online. Scanning the entire sample, the range of reasons given for choosing online study included:

- Some courses had a compulsory online component.

- Learners were unable to attend 'traditional' classes (due to personal commitments such as family and work responsibilities).
- It would be a 'good experience'.
- It would present a new challenge.
- The course or subject was only available online due to issues such as small numbers undertaking the course, or widely spread/isolated participants.

A number of learners commented that while they wanted to study flexibly, they would have preferred to access paper-based resources in preference to accessing learning online. For those who had the choice between attending face-to-face classes or online, online was chosen because of factors such as not having to travel to take up that choice. Many learners however, did not have a choice of study modes.

But was it the preferred mode?

Responses were equally divided between those who preferred online and those who preferred face-to-face. Many attribute their choice of online learning to the flexibility it allows, whereas those who prefer face-to-face find online frustrating and slow (although some of these respondents had limited computing/information technology knowledge).

For those who said that online learning was not their preferred mode, the range of reasons indicated included:

- not liking computers
- wanted a mix of modes
- need more motivation for distance/online
- confusing
- hard to get your mind around
- not user-friendly
- prefer face-to-face
- lack of personal interaction
- course more suited to face-to-face.

What the learning experience was like

Induction and introductions

Most commencing learners had participated in some form of familiarisation session regarding how to study online, and some had received written instructions, such as a booklet or list of steps.

In terms of readiness to commence, the majority of learners indicated that, following these sessions, they had all the information they needed at the start of their online course. This was subsequently contradicted however, with these learners commenting that they still needed more information and assistance as they went on, and at times they felt confused and spent too much time on the information technology issues rather than on the course content.

The few who did not feel confident when starting indicated that they needed another information session, as they 'didn't know what to do'. Many of these problems arose as a result of having underdeveloped navigational skills and underdeveloped information technology skills.

About half of the learners interviewed did not have any difficulty starting their online learning course. Those learners who identified problems focussed on technology issues, such as difficulties logging on, having a lack of information technology skills and getting 'locked out' of the system.

In order to overcome these problems, learners suggested strategies, such as maintaining and further developing induction programs, and also:

- ✧ providing more support throughout the course
- ✧ teaching in a mixed mode
- ✧ not assuming prior knowledge
- ✧ personal tutoring.

Further insight was added to these perceptions of 'readiness to start', with learners themselves adding that they didn't have sufficient information technology skills to commence their course, a situation an induction program would struggle to address.

Resources

Most learners interviewed found that the resources were easy to follow, although many still made 'hard copies' of materials (shifting the burden of resource production from organisations to individuals).

Those who found problems with the clarity of the resources made suggestions that materials needed to be:

- ✧ clearer
- ✧ easier to read
- ✧ accompanied by straightforward instructions
- ✧ more regularly updated
- ✧ tested—many 'links' were found not to work when learners used materials
- ✧ more user-friendly
- ✧ careful with the language used in materials
- ✧ mindful of navigation practicalities/ease
- ✧ careful in making assumptions about learners 'basic knowledge'.

Time management

The researchers anticipated that time availability and allocation may have caused some concern for learners. When asked about how they allocated their time and the success of their strategies, some learners explained that they set about developing quite deliberate study strategies, such as having a regular time/place to access information and/or study. However, many did comment that finding time for study was never easy and with this form of study, it was easy to put things off, procrastinate, and generally allow the priority for study to slide. Time-management issues may come to the fore not only when learners experience difficulties with the medium, but also if they lack the experience and disposition it takes to be a self-directed learner.

Some learners found that allocating time became even more of an issue if it had to be negotiated around times when:

- ✧ networks weren't too slow (that is, avoid business hours access)
- ✧ family/homes did not need the phone lines (so learners could have internet access).

Learners did find that the time needed for study via this mode was greater, adding that:

- Their other commitments contributed to time-management problems.
- It doesn't allow enough time to learn things through experimentation.
- Stored video streaming takes higher levels of time to download.

Communicating with teachers

Learners indicated that they used a variety of methods to communicate with their teachers/tutors, including phone, online modes (email, chat rooms and discussion boards) and face-to-face contact. When asked why these methods were used, learners commented that they chose what was convenient, easy to access and reliable.

Most learners did not have problems communicating online. However, those learners who did identify problems attributed these to:

- finding it easy to fall behind
- not knowing how to solve problems
- not being able to navigate effectively
- emails not getting through
- language a barrier
- slow communication platforms
- other technology-related issues.

Academic support

In terms of academic support, learners indicated that their needs had been addressed rapidly enough to be helpful, and that further improvements would only be possible by more teachers being available.

Technology as an issue

Technology was mentioned frequently throughout the interviews as an issue affecting almost all other issues explored. Learners suggested the need to address issues such as the provision of:

- better bandwidth
- the provision of other resources (disk copies of materials, hardcopies of resources etc.)
- training (for staff and learners) to address skills gaps
- practice and feedback.

The research team concluded that the cost of technology may have been an issue for some learners; however, the majority of learners indicated that they have not experienced any major prohibiting factors related to technology costs. For those who had, the significant costs had been in relation to purchasing software and hardware. Clearly, for this sample of learners, the technology cost barrier had already been overcome.

Having only one phone line at home was mentioned frequently as an access issue, so this suggested that the cost of installing and servicing a second line was a burden which most learners were not prepared to address.

Overall then, how positive?

Most learners interviewed found studying online to be a positive experience. This was mainly attributed to the convenience and flexibility of the mode. Learners also appreciated that it gave them broader access to information and that it was the 'modern way of learning'. Many learners indicated that they would study online again due to the convenience and flexibility the mode offered.

Those who did not like the mode and found the experience difficult and frustrating said they:

- ✧ did not have enough experience
- ✧ did not have appropriate/adequate motivation
- ✧ could not get enough help/explanation
- ✧ found that it took too long (longer than face-to-face study)
- ✧ experienced communication problems
- ✧ found that it was not user-friendly learning
- ✧ lacked peer support/peer communication
- ✧ lacked/missed teacher interaction
- ✧ felt that responses to questions/problems were too slow in coming
- ✧ believed that video streaming access was unreliable
- ✧ experienced bandwidth and server connection problems.

There were also those who stated that they would not undertake online study again. Once they had fallen behind, it was difficult to catch up, with some learners not able to complete the subject on time, thus falling behind in their overall coursework.

Benefits and barriers

While one of the aims of this research had been to collect information about the actual experience, an equally important aim was to contrast this with what learners had been expecting, in terms of benefits. The objective was to determine whether learners' expectations were realistic and how these might have affected outcomes for learners.

Generally, learners' expectations about the experience of learning online were positive, anticipating that it would provide:

- ✧ worthwhile challenges
- ✧ convenience and flexibility
- ✧ the opportunity to develop their computer/internet skills
- ✧ an opportunity to tailor the learning experience around their lifestyle
- ✧ quick and easy learning options and outcomes
- ✧ greater choice.

How learners felt about the experience afterwards, however, was revealing. While many still felt it had realised many positive outcomes, some comments revealed quite distinct dissatisfaction. The experience for some had been:

- ✧ challenging, but not in a positive way
- ✧ a demonstration of an inefficient system at work

- slow and difficult
- inconvenient, without home access to a computer.

Included amongst some of these negative outcomes, were learners' expectations that this form of learning might bring with it, or heighten problems relating to:

- isolation
- not knowing enough about technology
- being excessively time-consuming
- requiring high levels of self-discipline
- information technology failure/breakdown
- having long response times to learner queries.

Most of these issues were a reality for those participating in the study, and also included difficulties imposed by:

- having only one phone line at home (and having to share the internet connection with the phone)
- missing the face-to-face experience
- difficulties in juggling a number of different priorities (work, study, home etc.)
- poor turn-around times in responding to enquiries from learners
- the time it took to study in this mode often being far greater than expected.

Second interview findings

The research team attempted to track down and re-interview all first-round research participants in the two to three months following the initial interviews, in order to ascertain how the learners were progressing with the medium, and how attitudes might have changed in relation to the delivery style, mode, teaching organisation etc. However, this stage of the methodology proved more difficult than first anticipated. Both teachers and learners had moved on and only 21 learners from the initial pool of 46 could be contacted.

What the research team wanted to find out about were:

- whether the issues/problems associated with online learning at the commencement interviews were still the issues causing concern at the second interviews
- whether people would be interested in online learning again (and why?).

More than half of those re-interviewed (13) indicated they would study online again for various reasons, including the access and flexibility the mode afforded.

For a similar number, online had become a preferred mode of delivery, which was surprising, given the mixed responses recorded during the first interviews. However, the follow-up interviews were with learners who had persisted, and who were experiencing some success with the online mode.

When asked about how the learning experience had changed during the study period, most said that it had become easier. This change was attributed to having had more experience, and familiarity with the information technology aspects of studying online. Only one respondent said it had become harder and four said they found it no more or less difficult, possibly because they were already comfortable with the delivery mode prior to commencing their course.

Learners were also asked whether studying online had become more or less enjoyable since the first few weeks of their course. The majority of learners indicated that it had remained the same.

Benefits of online learning

We asked learners what they thought the benefits of studying online were likely to be, and to what extent those expectations had been realised. They mentioned access, flexibility, confidence in using a computer, and convenience. Interestingly, convenience rated highly, with 17 learners rating convenience as having been achieved and nine learners finding it 'quick and easy' (after a while). In terms of improving computer/internet skills, some said that this had been achieved, although others said that they already had the skills.

This factor of readiness is one that is very important in this research, as it has been mentioned in much of the feedback, including that relating to academic support, information technology support, attending induction/orientation and other associated areas.

Areas that respondents indicated were most in need of improvement included:

- clearer navigation instructions
- improved presentation
- bandwidth
- making materials more user-friendly
- communication/dialogue technique improvements
- the delivery platforms.

Suggested strategies regarding ways to improve included:

- simplifying design
- more technology training to upskill learners
- upgrading telecommunication lines
- use of online video streaming
- teachers to provide URLs.

To what extent did negative aspects arise?

When learners were interviewed initially they identified a number of negative aspects related to online learning. They were asked to reflect on the extent to which these issues had affected them during the course. Responses to this question were limited, with comments including:

- Confusion/delays were caused by not communicating face-to-face—learners said that this was 'often a problem', and they 'have to wait' for responses.
- Most had overcome their nervousness with the technology.
- Isolation as a factor drew varied responses, with some learners saying that they didn't feel isolated while others experienced varying degrees of isolation. The responses may have been more significant to this issue if more learners who were undertaking fully online/distance study had been available for interview.
- The majority of learners interviewed still found this mode more time-consuming than other forms of study.
- A lack of self-discipline was mentioned. Again, responses varied for this issue, with many learners acknowledging that their home environment was less than ideal for study, and that it was always easy to put study off. One learner commented that 'Mature age learners can't stuff

around … [they are] very motivated but having trouble completing as they keep changing the goal posts. [Study is] easy to put off'.

Barriers to learning

When learners were asked how the barriers identified earlier in the study had actually impacted on the learning process, responses were rated by learners, with far fewer anecdotes than expected. Of the 21 responses, we present each of the 'issues' with the corresponding responses.

Table 4: Academic support

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Responses to queries too slow	2	5	8	2	0	4

How is this impacting on you? Learner comments included:

- 'work at odd times'
- 'tutors sometimes too busy'
- 'nuisance and frustrating as there is one teacher to many learners'.

Table 5: Learning resources

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Lack of online resources	10	3	4	3	0	1
Lack of other resources (e.g. library)	13	0	4	2	0	2
Text and online resources do not match	8	3	4	0	0	6

Specifically, these problems relate to:

- lack of instructions
- lack of learner skills
- 'everything you say is [published] on the web'

Table 6: Communication problems

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Poor quality of video streaming	0	0	0	1	0	20
Uncertainty about messages being received	4	3	5	6	1	2
Problems with attachments	9	2	3	3	1	3
Slow responses	5	6	1	6	0	3
Out of sync, synchronous chat (e.g. chat times are not set)	7	0	2	0	0	12
Lack of regular feedback	10	2	3	1	0	5

How are these impacting on you? Comments included:

- ✧ 'one teacher for whole of the class'
- ✧ 'involves lots of waiting time'
- ✧ 'learners have a lack of IT skills'
- ✧ 'need to organise chat times first'.

Table 7: Time

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Other time commitments	7	4	4	4	0	2
Course too short	15	0	3	0	0	3
Course too time-consuming	14	2	1	2	0	2

How are these impacting on you and how could they have been alleviated?

- ✧ 'F2F [face-to-face] would have been quicker'
- ✧ 'could have done it quicker on paper'
- ✧ 'just needed to get a handle on it'.

Table 8: Difficulties starting

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Difficulties with logging on	9	4	2	5	0	1
Difficulties with passwords	12	2	1	5	0	1
Difficulties with navigation	9	3	4	4	0	1
Difficulties with email	14	2	2	1	0	2
Difficulties with computer terminology	15	1	2	2	0	1
Lack of motivation	11	1	5	2	0	2

The specific problems related to:

- ✧ 'couldn't get on to start with'
- ✧ 'teacher not set up properly in first place'
- ✧ 'problems occurred every time'
- ✧ 'problems occurred intermittently'
- ✧ 'was unsure about what I was doing'.

Table 9: Technology

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Lack of technology skills	14	1	2	3	0	1
Isolating	9	5	2	1	0	4
System down	9	7	1	3	0	1

Specifically, these issues impacted because:

- The learner wasn't expecting to have problems and found the site badly designed making the learning more difficult.
- Had face-to-face delivery as well or learned to live with the problems.

Table 10: Technology costs

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion	Not applicable
Cost of upgrades/setting up (hardware)	13	2	3	0	1	2
Cost of software	14	0	1	3	0	3

Specific issues which learners discussed included the high cost of internet access and systems set-up, meaning that learners had to rely on the use of work and TAFE computer and internet systems to enable them to access online materials.

Other comments

When learners were asked if they wanted to make any additional comments, their responses were as follows:

- 'It is imperative that government is lobbied to speed up internet access, quickly, otherwise we will fall behind America.'
- 'Thoroughly enjoyed it despite the challenges.'
- 'The medium is fantastic when used as a supplementary tool. Can access assignments and notes online. Not good though in isolation/sole mode.'
- 'Collaboration is important to achieve best materials. Important not to get too focussed on technology. Never forget we can do without it. It emphasises the "haves and have-nots".'
- 'Pretty negative about it. Would like to be more positive but the course really was a fizzer. Instructions needed to be clearer. The online was the most unsatisfactory part of the course. Would have much preferred a piece of paper.'
- 'Have been post-compulsory learner for the last 15 years and online is better, especially because one can get all the resources needed at anytime, not just when in front of class. However, I would not like to be fully online, as I would miss class contact too much.'
- 'Need support networks for the learners. I developed these myself and got them up and going so learners could help each other.'
- 'Mature-aged class, so the bulk of us went into class scared about the technology. Everyone in class experienced problems, even the one learner who was very capable with the technology.'
- 'Started the process with an open mind, excited, wanting to succeed (I buy on e-bay ... how hard can it be?), but found it was not my thing.'

Conclusions from learner interviews

While this feedback on the learner experience is important, the sample size means that the data need to be treated as indicative only and strongly related to the learner context.

The majority of learners in this study had not had previous experience as distance learners, and in their learning experience, the online components were primarily limited to using the medium as a

communication tool with other learners and teachers, writing assignments and finding resources online. This has limited the extent and insightfulness of the comments made regarding online learning.

Learners continually discussed *time* as one of the biggest issues, finding the mode more time-consuming than traditional study and also finding it challenging to accommodate study and other commitments.

The biggest barriers listed by learners that impact on learning, include:

- ✧ responses to academic support being too slow
- ✧ uncertainty about messages being received
- ✧ communication problems—slow responses
- ✧ difficulties logging on, passwords and navigation difficulties.

There was limited feedback from learners when they were asked to identify any specific barriers. Those who did respond listed the following:

- ✧ lack of peer support
- ✧ time
- ✧ bandwidth access issues
- ✧ time between query and feedback from teacher
- ✧ the need for communication with learners
- ✧ the need for learners with computing skills.

Many of these barriers are consistent with comments and findings of McNickle (2001), Graham (2000), Harper et al. (2000), Sidoti (2001), Choy, McNickle and Clayton (2002).

The findings of this research appear to be consistent with earlier research undertaken in this area by Warner, Christie and Choy (1998), Smith and Smith (1999) and Carroll and McNickle (2000). It also confirms that the majority of learners prefer the benefits of face-to-face delivery where this is available and accessible. However, they appreciate the flexibility and convenience the online mode offers them in order to fulfil other commitments. These are also the reasons learners gave for finding online learning a positive experience. For those learners who had negative issues, these were attributed to lack of experience, loss of motivation, insufficient feedback and communication problems.

Persisting learners found the medium convenient, accessible and reliable for communicating with teachers, and most found that their needs had been addressed rapidly enough to be helpful. A number of the learner group were undertaking information technology courses and it might be assumed some of these learners were proficient users prior to enrolment. For others, adequate preparation and support is a necessity. This aligns with the findings of McNickle (2001), where learners listed a number of basic computing and internet skills they saw as essential components of an enabling program for learners undertaking online learning.

The main anticipated benefits of online learning were convenience and flexibility, choice, challenges, and the provision of opportunities to develop computing skills. Learners anticipated that the negative aspects would include: isolation; that it was slower; not knowing how to use the technology; that it was more time-consuming; the need for discipline; technology failure; and a long response time to queries. A number of learners, but not the majority, indicated that these expectations had been realised. We can only speculate that the group of non-persisting learners would have identified these as difficulties even more strongly.

The main barriers identified by learners were technology-related issues. Remedies to overcome these were seen to include the provision of a better delivery system and more instruction for users, including classes for beginners to enhance their information technology skills, support throughout the course, and personal tutoring. Learners also commented that prior knowledge should not be assumed. Many of these findings are consistent with those of other research (Salmon 2000; Harper et al. 2000; Choy, McNickle & Clayton 2002; Carroll & McNickle 2000; McNickle 2001).

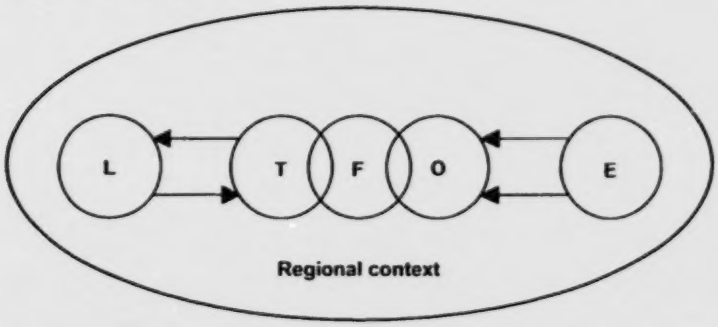
Relationships at work

The research team reached a point in the analysis of results where they found that, as a result of the initial assumptions and design, the views of the various stakeholders had become clearly differentiated. The researchers believed that, through the development of a series of diagrams, they could examine the relationships that existed between the groups and explore the differences in experience and perspective of each.

In all diagrams L = learners, T = teachers, F = flexible learning managers, O = chief executive officers/organisations, and E = external forces (especially state education departments/policy-makers).

The analysis led to a representation of conventional teaching/learning relationships as follows.

Figure 1: Assumption

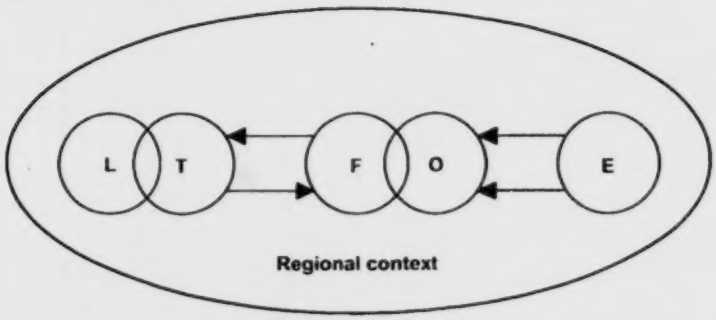


In figure 1, we see learners and teachers with a high degree of inter-relatedness, contact and communication. Teachers and flexible learning managers are shown as intersecting because of the supportive and sometimes overlapping relationships they have. (Indeed, some flexible learning managers are, or have recently been, in teacher roles.) The organisation has more contact and relationship with the flexible learning manager and rather less with the teachers' and learners' perspectives. The organisation forms relationships with, and attempts to influence the policy elements in the equation.

There is certainly an overlap of experience and vision among the organisational interests, along with a congruence of values and purpose. There is, however, a degree of separation of experience (or perceived experience) between the learners on the one hand, and the 'state' (policy/funding) interests on the other. To successfully engage the learner, there is a significant gap to be worked on. This may be achieved through a more effective application of the organisation's resources. In the online setting, interaction with the teachers and the technology should assist with this. A highly effective system will reduce or eliminate this gap; however, failure to address it can lead to the learner disengaging from both the organisation and the learning process.

The results of the analysis of the case-study environments could be represented by one of the two following variants.

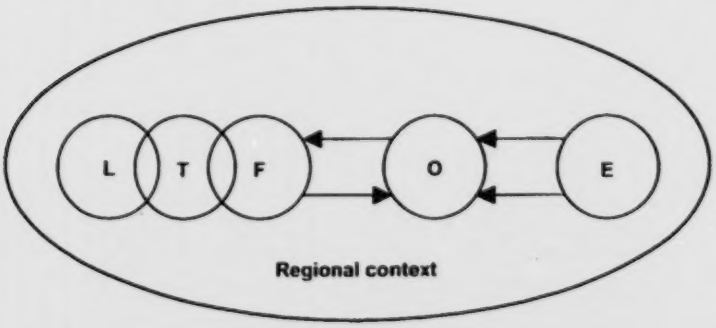
Figure 2: First variant



Here the learners and teachers have a high degree of congruence of goals, and shared experiences of the process. This includes similar perceptions of what makes it work and what the frustrations are. The teacher is the 'frontline operator', fighting to secure an effective alignment of resource to task, and trying to bridge any gaps in service through the extra application of time and commitment. Typically, in the context of inhibiting effectiveness, both the learners and teachers describe a lack of resources (money, skill, technology, time) and inadequate systems support.

The separation of experience and perceptions becomes apparent between those directly involved in the learning activity (learners/teachers), and the rest of the organisational setting (flexible learning managers/organisations). Flexible learning managers/organisations describe the alignment of values and experiences differently from learners/teachers, setting out the organisational perspective clearly, but often at odds with what is actually happening. The flexible learning manager's/organisation's report often does not match the current experiences of the learners and the teachers.

Figure 3: Second variant



In figure 3, the flexible learning manager (who may also be an online teacher), experiences somewhat more detachment from the organisational goals and systems, and becomes more of an advocate for online learning, trying to meet the actual needs and interests of learners, and addressing the concerns of teachers. The flexible learning manager endeavours to make the provider systems adapt to these needs, rather than the other way round.

In both cases a gap exists between goals and expectations at the provider level, and government policy, investment strategies and telecommunications facilities. These may be exacerbated as a consequence of regional location and conditions.

Conclusions

This study has explored the experience of learners, teachers and VET providers to determine how effectively and satisfactorily VET programs using online components are being delivered and received by a diverse sample of regional Australians. Regional in this context has meant non-metropolitan, including rural, but not specifically remote regions.

The study set out to identify factors which differentiate or significantly impact on the capacity of regional and rural learners to effectively access and utilise online education and training opportunities. It examined the conditions under which learners enrolled in selected programs that utilise an online delivery component are resourced and supported. It also investigated the extent to which barriers or impediments to learners engaging successfully with online learning occur or impact in ways specific to these regional conditions, and what is being done to overcome these barriers.

The research revealed that the bridgehead to online learning in the locations investigated is not yet well established. Much delivery is poorly resourced, teachers feel isolated and under pressure, and learners struggle to remain engaged, while the system is giving public undertakings and predictions for online learning that the current patterns of delivery and learner support do not bear out.

Underlying difficulties presented by non-provider-related factors—learner isolation, information and communication technologies knowledge and readiness, regional infrastructure—are identified and recognised as limiting accessibility and sustainability. The quality of resources and access to learner support to deal with both course-related and technology issues were also identified as critical issues in this context.

Documentation of learners' expectations, and subsequent accounts of how they coped, range from 'highly successful' to 'unable to cope'. Attrition in learner numbers is noted, and while sample size and research design did not provide either aggregated or comparative data on this feature, levels of disengagement appear significant and are of concern to teachers. Most learners indicated that they had no alternative choice of study mode, so the implications of their disengagement are highly negative, both for their current VET program, and potentially for future studies involving online delivery.

The majority of learners who were re-interviewed reported that they found studying online to be a positive experience, due mainly to the convenience and flexibility of the mode. Their level of satisfaction and achievement was such that they would be happy to study online again. The group was equally divided about preferring online or face-to-face modes. Clearly, both modes have distinctive features which learners value, and mixed or blended modes, where possible, are advantageous to both learners and teachers.

The factors that are clear indicators for successful engagement are also indicators for where difficulties in a learner's experience of the online mode may cause a breakdown, temporary or permanent, in the continuity of their learning. Being able to be connected and stay connected is the primary determinant of success or failure. Other elements relating to learner attitude, time availability and management, resource quality, and teacher availability and feedback were also crucial issues identified by this study.

Learners and teachers report communication technology delays, dropouts and frustrations as a fairly regular feature of their experience, although this varies in regularity and intensity, depending on location and time of day. In most cases this is out of the control of the provider or the learner—they are both dependent on the quality and capacity of the local phone system. These services and bandwidth capacities are being improved across regional Australia but, until they are, reliable and timely connection remains a primary obstacle to ensuring a level of access and reliability of supply. In the meantime, some notion of minimum standards for successful transmission and reception of online learning would help learners and providers to know whether what they want to do is achievable using their local technology infrastructure.

At the next level, there are decisions to be made by both providers and learners about their own 'site' technology, in order to provide minimum or optimum links and levels of service. Several provider staff reported frustrations arising from volume of traffic and bandwidth capability within their institution/location.

At the other point of access, individual learners frequently have to cope with system and access issues at home and work. Most learners would like a second phone line or dual access internet provision at home so that study needs do not disrupt other family needs, but few are ready to make this investment. Likewise, workplace access is often highly controlled and time limited. These elements, while not specific to regional learners, are problematic, and the cost of remedies in regional areas is almost always greater than metropolitan areas.

The research demonstrated that at the important interface between learners and teachers there is much agreement and recognition that the difficulties experienced are shared ones. To the extent that online learning is working, much acknowledgement must go to the effort and insight of teachers. That so many are persisting with these modes, given the added load of resource development and learner support that many report, is ample evidence of their high commitment, but also of a need for greater investment by institutes, together with their funding sources, to more adequately measure and match resources to the level of learner need and teacher effort involved.

Beyond the infrastructure problems already mentioned, teachers expressed concerns about learners having the information and communication technologies skills to cope, and that they (the teachers) may in turn lack the technology and applications knowledge to support them. In most other areas, teachers were responding capably to minimise negative effects and increase learner retention, with strategies including:

- ✧ providing greater levels of initial guidance and learner support than were designed into their programs
- ✧ screening learners to establish existing levels of information communication technologies ability, and compensate where required
- ✧ using chat facilities, including audio-conferencing to overcome the sense of learner isolation and create a group experience
- ✧ strengthening the asynchronous components and learner access to print-based resources.

Teachers showed great awareness of the potential of the medium and the online mode to provide a creative and responsive learning environment and were therefore frustrated with their limited capacity to match 'high-end' online programs. Reasons for this are partly because the delivery infrastructure lacks the bandwidth for video-streaming and complex forms of interactivity, but also because the resources themselves either don't exist, or providers lack the capacity, including time, to develop and/or supply these. In general however, teachers appear to be adjusting their use of the online mode well to the conditions in which they are operating, although at considerable cost in terms of their time—often disproportionate to the resource value that a small number of online learners represents.

This is an issue which may constitute a future problem area for institutes, particularly those in regional areas. Low levels of demand/usage of online systems spread across a wide range of program areas and levels limit the prospect of any sort of critical mass. A predictable level of usage is required for providers to commit resources that deliver on learner and teacher expectations. Statewide and/or collaborative approaches are among the means by which regional providers can achieve this, but there remain concerns about the range and usability of these products and platforms.

None of the providers in this study showed evidence of comprehensive organisational strategies and structures. While this is in part a 'systems lag' problem, it is important that regional providers have the means available to them to make an effective assessment of information and communication technologies capacity and capability issues, work out their strategic response and make sustainable investment decisions. Most chief executive officers and flexible delivery systems managers remain hopeful, but were quick to point to supply-side problems, including:

- ✧ workforce preparation and industrial relations issues
- ✧ sustainability of their increasing hardware/software investment and replacement costs
- ✧ government funding formulas for delivery hours, training packages and delivery models that make no provision for front-end preparation of learners, including in the 'new' generic skills that online and other forms of independent learning assume.

The conclusions to this study provide scope for further investigation, and some measure of where regional provision of VET programs, for the providers and learners within the scope of the study, has reached.

References

Booker, D 2000, *Getting to grips with online delivery*, NCVER, Adelaide.

Brennan, R 2003, *One size doesn't fit all: Pedagogy in the online environment*, NCVER, Adelaide.

Brennan, R, McFadden, M & Law, E 2001, *All that glitters is not gold: Online delivery of education and training*, NCVER, Adelaide.

Carroll, T & McNickle, C 2000, *Online student services report, an online initiative within the ANTA Framework for National Collaboration in Flexible Learning in VET 2000–2004*, Canberra Institute of Technology, Canberra.

Cashion, J 2000, 'Research in online education', paper presented to Moving Online Conference, 18–19 August, Southern Cross University, Gold Coast.

Cashion, J & Palmieri, P 2000, *The secret is the teacher: The learner's view of online learning*, NCVER, Adelaide.

Choy, S, McNickle, C & Clayton, B 2002, *Learner expectations and experiences: An examination of student views of support in online learning*, NCVER, Adelaide.

Curtain, R 2002, *Online delivery in the vocational education and training sector: Improving cost effectiveness*, NCVER, Adelaide.

Department of Information Technology and the Arts 1998, *A strategic framework for the information economy: Identifying priorities for action*, AGPS, Canberra.

EdNA VET Advisory Group 2000, *Strategy 2000—flexible learning for the information economy: The Framework for National Collaboration in Vocational Education and Training 2000–2004*, Australian National Training Authority, Brisbane.

Else, R & Hicks, R 1998, *Messages received: Use of online technology for the delivery of vocational training to remote North West Australia: A feasibility study*, Hedland College of Social Research Centre, South Hedland, WA.

Graham, C 2000, *Dot.com or Not.com? Implications for career and enterprise education in the digital economy*, Open Learning 2000, Learning Network Queensland, Brisbane.

Harper, B, Hedberg, J, Bennett, S & Lockyer, L 2000, *The online learning experience: The state of Australian on-line educational and training practices*, NCVER, Adelaide.

Horton, C & Osborne, J 2003, 'Regional perspectives on online learning', in *Online learning: Research readings*, ed. H Guthrie, NCVER, Adelaide.

Limerick, B, Burgess-Limerick, T & Grace, M 1996, 'The politics of interviewing: Power relations and accepting the gift', *International Journal of Qualitative Studies in Education*, vol.9, pp.449–60.

McNickle, C 2001, *Strategy 2001: Digital divide—Access and equity in online learning*, Canberra Institute of Technology, Canberra.

Misko, J 2000, *Different modes of delivery – student outcomes and students' perspectives*, Australian Vocational Education and Training Research Association, Melbourne.

Mitchell, J 2001, *The changing Australian market for VET online*, Australian National Training Authority, Brisbane.

Oliver, R, Omari, A, & Herrington, J 1997, 'Exploring interactions in collaborative world wide web learning environments', paper presented at the Educational Multimedia/Hypermedia and Telecommunications Conference, 14–19 June, Calgary, Canada.

Salmon, G 2000, 'Learning submarines: Raising the periscopes', keynote speech, Networking 2000 Conference, <http://www.flexiblelearning.net.au/nw2000/summary/sum_key.htm> [accessed May 2002].

Schofield, K, Dryen, R, Walsh, A & Melville, B 2001, *Online learning and the new VET practitioner— working paper*, RCVET, Sydney.

Sidoti, C 2001, 'What rural communities expect from TAFE', TAFE Directors Australia 2001 annual conference, Brisbane.

Smith, P & Smith, S 1999, *The internationalisation of vocational education and training*, NCVER, Adelaide.

Stake, R E 1995, *The art of case study research*, Sage, Thousand Oaks, CA.

Stein, M, Smith, M & Silver, E 1999, 'The development of professional developers: Learning to assist teachers in new settings in new ways', *Harvard Educational Review*, vol.69, no.3, pp.237–69.

Warner, D, Christie, G & Choy, S 1998, *The readiness of the VET sector for flexible delivery including online delivery*, EdNA VET Working Group, Australian National Training Authority, Brisbane.

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Appendices

Appendix 1: Reference Group

NCVER Research Project NR1F04:

Where to with Online Learning in Regional Australia?

Monday, 18 February 2002

Name

Title

Address

Address

Address

Dear .....,

Thank you for agreeing to participate in the reference group for this project. Your involvement is based on your commitment and expertise relating to this investigation, and your capacity to provide input and support to the direction of the research methodology, findings and reports.

This first letter is to confirm your participation and the arrangement for the operation of the reference group.

Attached to this letter are four documents for your information. Attachment A (Project Proposal) is the introduction to the proposal which we submitted last year to NCVER, which secured the project for us. This should be read in conjunction with Attachment B (Project Details) which contains the specifications and milestones of the project.

Also attached are the names, contact details and short 'professional outline' for each of a) the Project Reference Group members (Attachment C) and b) the Research Team members (Attachment D).

Please check that your own details are accurate and as complete as you would like them.

Reference Group Input

The Project Reference Group will provide input into the project at five key stages:

Stage 1: Development of the research instruments (current)

Stage 2: Development of the literature review (current and ongoing)

Stage 3: Development of the draft interim report (due March 1st 2002)

Stage 4: Development of the final report and other project outputs as per schedule (due 30th June 2002)

This indicates that, with the exception of the literature review, to which contributions may be made at any point over the period of the research, there will be two intensive periods of document circulation and review.

Phase 1 – November 2001 to March 1st 2002

Phase 2 – May/June 2002

All documents will be circulated electronically. Please let me know if your availability is limited during the key phases.

Feedback on Research Instruments

Shortly you will receive a set of documents that make up the primary investigative tools. This first set includes:

Doc. 1 Online learner's questionnaire (to be administered to 36 – 40 subjects)

Doc. 2 Online teacher's questionnaire (up to 12 subjects)

Doc. 3 Organisational stakeholder's questionnaire (up to 12 subjects).

Each of these questionnaires will be administered one-on-one by the researchers, either face-to-face or by telephone.

In addition, researchers will conduct focus groups with learners (Doc. 4) and with teachers (Doc. 5) at each of the specified research sites. The questions to be covered in this part of the process will also be included.

We have a short timeline on refining these instruments, which have been trialed locally. Field research commences next week. This short timeline is caused by delays in contract negotiations with NCVER and the usual Christmas/January absences of staff here and in our provider locations.

There is a high degree of 'mirroring' in the design and questions in the online learners' and teachers' questionnaires, and likewise the focus group questions. If as is likely, your time is limited, feedback on Documents 1,3 & 4 will also guide our thinking on Documents 2 & 5. We would appreciate it if your comments on these items could reach us by close of business, Thursday 21st February.

Another document set to be forwarded later this week, including:

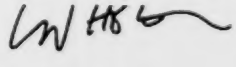
Doc. 6 Electronic Learner Diary instructions

Doc. 7 Scoping document for the provider case studies.

This project is being conducted in accordance with the provisions and procedures of Wodonga Institute of TAFE's Draft Human Research Ethics Policy, which I am happy to forward to you if you so desire.

I am looking forward to working with you in making this important project as effective as we can.

Yours Sincerely,



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Former SA TAFE Open Learning Manager
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Investigated educational and social issues affecting regional and remote Australians

Appendix 2

CENTRE FOR RESEARCH, PLANNING
& DEVELOPMENT

Ph 02 6055 6330 Fax 02 6055 6339

INFORMATION SHEET

Project title: NCVER Research Project NR1F04:

Where to with Online Learning in Regional Australia?

Researchers:

Cathy McNickle	Katie Scholten	Roslin Brennan
Tel: 02 6207 4983	Tel: 02 6055 6330	Tel: 02 6933 2745
Fax: 02 6207 3322	Fax: 02 6055 6339	Fax: 02 6933 2888
cathy.mcnickle@cit.act.edu.au	kscholten@wodonga.tafe.edu.au	rbrennan@csu.edu.au

We are writing to ask you to participate in the above mentioned study. This research is being conducted by the Centre for Research, Planning and Development, Wodonga Institute of TAFE on behalf of the National Centre for Vocational Education Research (NCVER).

The project is designed to inform the Vocational Education and Training (VET) community of the online learning experience from the perspective of the learner.

We would like to invite you to be a part of this study by participating in an interview or focus group at a time to be arranged. The interview will take approximately 30 minutes and the focus group approximately an hour.

During the interview/focus group we would like to address questions relating to:

- Your previous experience as a learner
- The reasons for choosing to study online
- The necessary skills required for online learning
- The benefits of online learning
- The barriers to online learning
- Suggested strategies for over coming barriers to online learning

All information collected during the interview that might identify you will remain confidential. Your answers will be written down to help with the collation of the research outcomes. All data collected for this study will be retained by the Centre for Research, Planning and Development at Wodonga Institute of TAFE and will be stored for a period of seven years.

Information obtained as a part of the interview/focus group will be published. However, at no time will you be identified and any personal details that you provided, during the course of your participation, will remain confidential.

Participation in the study is voluntary and you have the right to withdraw your consent at any time.

If you have any specific questions about the project please do not hesitate to contact any of us on the above numbers.

Thank you again for your interest and cooperation

THE RESEARCHERS

Centre of Research, Planning & Development,

Wodonga Institute of TAFE.

Appendix 3

CONSENT FORM

Project title: NCVER Research Project NR1F04:

Where to with Online Learning in Regional Australia?

Researchers:

Cathy McNickle	Katie Scholten	Roslin Brennan
Tel: 02 6207 4983	Tel: 02 6055 6330	Tel: 02 6933 2745
Fax: 02 6207 3322	Fax: 02 6055 6339	Fax: 02 6933 2888
cathy.mcnickle@cit.act.edu.au	kscholten@wodonga.tafe.edu.au	rbrennan@csu.edu.au

- I have read the Information Sheet, which outlines the nature and purpose of the research project. I understand and agree to take part.
- I understand that while information gained during the study may be published, I will not be identified and my personal details will remain confidential.
- I understand that I can withdraw from the study at any stage and that this will not affect my status now or in the future.
- I understand that my answers given during the interview/focus group will be documented.
- I understand that my interview/focus group will be taped for data collection purposes.
- I understand that the information I provide will be sent to me for verification prior to publication.
- I understand that I may not directly benefit from taking part in the study.

Name of participant: .....

Signed: .....

Dated: .....

I have explained the study to the participant and consider that he/she understands what is involved.

Researcher's signature: .....

Date: .....

Appendix 4

Regional Perspectives of Online Learning

Stakeholder Interview Questions

Institute:	
Respondent:	
1. What are the key factors/drivers influencing your organisation's commitment to online learning?	
2. What specific goals do you have as far as online learning is concerned (educational, social, strategic, business etc)?	
3. What benefits do you perceive there are to enhancing access to online learning in regional Australia?	
4. What do you project to potential learners as the benefits to accessing online learning?	
5. What benefits are projected to you by governments, communities etc to enhancing access to online learning?	
6. To what extent do you believe these projected benefits are realistic and achievable?	
7. What do you believe are the barriers to extending the uptake of online learning in regional Australia?	
8.What do you believe are the barriers to extending the uptake of online learning in your particular region?	
9.What do you feel would be the implications if these barriers are not successfully addressed?	
10. What strategies would you like to see implemented to overcome these barriers?	
11. What are the most critical strategies that your organisation is applying to increase access to and uptake of online learning?	
12. If successful, how, in your view, will these strategies have changed your organisation by 2005?	

Appendix 5

Institute:

FG:

Regional Perspectives of Online Learning
Learner Focus Group Questions

Question 1: Why did you choose to study online? (Was it choice, necessity?)

Question 2: In what ways have your experience as an online learner been positive?

Question 3: What are the benefits of studying online?

Question 4: What are the negative aspects of studying online?

Question 5: Were there any skills you did not have, that you needed to be a successful online learner? If so, what were these? How are you achieving these skills?

Question 6: Are there any issues/problems related to studying online? If so, what are they and why are they issues?

Question 7: What would be the implications if these issues weren't addressed?

Question 8: What could be done to overcome these issues?

Appendix 6

Institute:

FG:

Regional Perspectives of Online Learning
Teacher Focus Group Questions

Question 1: Why did you choose to teach online? (Was it choice, necessity?)

Question 2: Do you feel the online learning experience has been positive for your learners?

Question 3: What are the benefits to your learners of studying online?

Question 4: What are the negative aspects experienced by your learners of studying online?

Question 5: Are there any skills your learners needed to be successful online learners but did not have on commencement? If so, what were these? How have you addressed these needs?

Question 6: Do any of your learners experience any issues/problems related to studying online? If so, what are they and why are they issues?

Question 7: What will be the implications if these issues aren't addressed?

Question 8: What can be done to overcome these issues?

Appendix 7

Regional Perspectives of Online Learning
Learner Interview Questions

Institute:
FG:
Teacher:

LEARNER PROFILE

Please fill in and/or tick appropriate responses

Contact Details (optional)

Name: _____

Phone: (___) _____

Email: _____

Gender: ☐ Female ☐ Male

Occupation _____

Age Group: ☐ Under 18yrs ☐ 18-25yrs ☐ 26-35yrs
☐ 36-45yrs ☐ 46-55yrs ☐ Over 55yrs

Which town do you live in/near? _____ Postcode ☐☐☐☐

Is your location ☐ A regional centre ☐ A rural area ☐ Remote

☐ Other (please specify _____

YOUR PREVIOUS LEARNING EXPERIENCE

What is you highest completed qualification/education level?

☐ Before year 12 ☐ Year 12 ☐ Post school trade

☐ Other eg. Degree, Diploma (please specify _____

In what year did you last do any formal education? _____

Describe your previous experience as a distance learner _____

Describe your previous experience with using computers for communicating _____

Describe your previous experience with using computers for learning _____

YOUR COURSE & MOTIVATION

What course are you presently studying? _____

Which parts of your course are online? _____

Why have you decided to study? *(Tick as many responses as applicable)*

- ☐ To get a job
- ☐ To get better job or promotion
- ☐ To get extra skills for my job
- ☐ For interest or personal development
- ☐ To try for a different career
- ☐ It was a work requirement
- ☐ To get into another course of study
- ☐ Other (specify) _____

Why are you doing this course online? _____

Is this your preferred mode? ☐ Yes ☐ No

Why/why not _____

YOUR LEARNING EXPERIENCE

Do you find studying online to be a positive experience?

☐ Yes. Why? _____

☐ No. Why not? _____

Do you have options for doing this course that do not involve online study? If so, what are they? _____

Did you get all the information/assistance you needed to start online learning?

☐ Yes. What sort of things did that include? _____

☐ No. What sort of things would have helped? _____

Did you take part in any form of an induction or orientation program?

☐ Yes. How beneficial was it? Why? _____

☐ No. Would one have helped? Why/why not? _____

Are the study guides, information, resources etc, easy to follow?

☐ Yes ☐ No. How could they be improved? _____

How do you allocate time for your study? Is this easy? Why/why not? _____

Would you study online again? Why/why not? _____

How do you communicate with your teacher/tutor?

☐ by phone ☐ by email ☐ via online discussion boards

☐ in chat rooms ☐ other (please specify) _____

Why do you use the above way to communicate? _____

Are your queries and needs attended to fast enough to be helpful?

☐ Yes ☐ No. How could this have been improved? _____

BENEFITS OF ONLINE LEARNING

Before you started, what did you believe would be the benefits of being an online learner? _____

To what extent have you achieved these benefits? Why/why not? _____

Before you started, what did you think would be the negative aspects of being an online learner? _____

To what extent have these negative aspects occurred? Why/why not? _____

BARRIERS TO LEARNING

Were there any difficulties associated with you starting your online learning?

☐ No ☐ Yes. What were they? _____

What strategies could be used to overcome these? _____

Are there any problems for you associated with communicating online?

☐ No ☐ Yes. What are they? _____

What strategies could be used to overcome these problems? _____

Have there been any issues associated with academic support?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Are there any issues for you associated with the learning resources?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Are there any issues for you associated with using the technology?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Are costs associated with the technology an issue for you?

☐ No ☐ Yes. What costs? _____

What strategies could be used to overcome these issues? _____

Is time an issue for you as an online learner?

☐ No ☐ Yes. Why? _____

What strategies could be used to overcome this? _____

Have you experienced any other specific issues of barriers as an online learner? What are they? _____

What strategies could be used to overcome these? _____

- If these issues or problems continue, what impact will they have on you learning online? _____
- Please feel free to make any additional comments _____

Thank you for your valued contribution to this research. If you have any questions or wish to discuss any of these issues further please do not hesitate to email Katie on kscholten@wodonga.tafe.edu.au

Appendix 8

TEACHER PROFILE

Please fill in and/or tick appropriate responses

Contact Details (optional)

Name: _____

Phone: (___) _____

Email: _____

Gender: ☐ Female ☐ Male

Position title: _____

Age Group: ☐ 18-25yrs ☐ 26-35yrs ☐ 36-45yrs
☐ 46-55yrs ☐ Over 55yrs

Which town do you live in/near? _____ Postcode ☐☐☐☐

Is your location ☐ A regional centre ☐ A rural area ☐ Remote

☐ Other (please specify _____

YOUR PREVIOUS TEACHING EXPERIENCE

What qualifications do you hold?

Vocational: _____ Educational: _____

Describe your previous experience of supporting/teaching distance learners _____

Describe your previous experience with using computers for communicating _____

Describe your previous experience with using computers for learning _____

YOUR COURSE & MOTIVATION

What courses do you teach online? _____

Which parts of the courses are online? _____

Why is this/are these course/s offered online? _____

Is online delivery your preferred mode? ☐ Yes ☐ No

Why/why not? _____

YOUR IMPRESSIONS OF ONLINE LEARNERS

Do you believe learning online is a positive experience for your learners?

☐ Yes. Why? _____

_____

☐ No. Why not? _____

_____

Did you conduct any form of an induction or orientation program?

☐ Yes. How beneficial do you feel it was for your learners? _____

_____

_____

☐ No. Do you believe one would have helped your learners? Why/why not? _____

_____

_____

Are learners easily able to follow the study guides, information, resources etc?

☐ Yes ☐ No. How could they be improved? _____

_____

_____

How do you communicate with your learners?

☐ by phone ☐ by email ☐ via online discussion boards

☐ in chat rooms ☐ other (please specify) _____

Why do you use the above way to communicate? _____

_____

_____

BENEFITS OF ONLINE LEARNING

Before you started, what did you believe learners would benefit from studying online? _____

_____

_____

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To what extent do you believe learners received these benefits? Why/why not? _____

_____

_____

_____

_____

Before you started, what negative aspects did you think learners would have with studying online? _____

_____

_____

_____

_____

_____

To what extent have these negative aspects occurred? Why/why not? _____

_____

_____

_____

_____

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BARRIERS TO LEARNING

Were there any difficulties for your learners associated with starting their online learning?

☐ No ☐ Yes. What were they? _____

What strategies could be used to overcome these? _____

Do learners have any problems associated with communicating online?

☐ No ☐ Yes. What are they? _____

What strategies could be used to overcome these problems? _____

Do learners have any issues associated with academic support?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Do learners have any issues associated with the learning resources?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Do learners have any issues associated with using the technology?

☐ No ☐ Yes. What are they? _____

What strategies could be used to deal with these issues? _____

Do learners have any issues associated with time management?

☐ No ☐ Yes. Why? _____

What strategies could be used to overcome this? _____

Do you know of any other specific issues or barriers experienced by your online learners? What are they? _____

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What strategies could be used to overcome these? _____

_____

_____

If these issues or problems continue, what impact will they have for your learners? _____

_____

_____

_____

Please feel free to make any additional comments _____

_____

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Thank you for your valued contribution to this research. If you have any questions or wish to discuss any of these issues further please do not hesitate to email Katie on kscholten@wodonga.tafe.edu.au

Appendix 9

Dear Learners,

Thanks for agreeing to be part of the new electronic diary program that we are setting up. We think that it is an exciting part of our bigger research program that we are working on at the moment. Our research project is looking at the things that make Online learning either work, or not, for you the learner. For this reason we would like your help. We need you to use the electronic diary three times a week for five weeks to record your impressions and reactions to your own Online learning. We will provide you with a small number of headings to organise your thoughts and lots of space to write about the things that concern you.

We also have a group of people who will respond to your entries via email. They will read what you have written and probably ask a few questions so that they can get your messages clear. No names will be reported on so you can feel safe in expressing what you think without worrying about comments being linked back to you.

We hope that you will enjoy the experience. We are looking forward to corresponding with you in this way and we hope that we can learn a lot about how learners who are working Online feel and think about the new technologies.

Regards

The Research Team.

Using your electronic diary

Step 1.

Your 'diary person' will make contact with you via email. They will invite you to write about your Online activities and experiences. To make it easier in these first stages we will ask you to write about:

How you felt?

What went well?

What went badly?

What got in the way of your learning?

What needs to be changed to make the online learning better for you?

Step 2.

When you have written back to your 'diary person' they will then reply to you. Perhaps they might have a few ideas of their own to offer. Perhaps they might ask you to write some more about some of the points you have raised, or perhaps they might arrange for a 'chat session' where you two can discuss issues in real time. They will invite you to write back again.

Step 3.

Steps 1 and 2 will continue over a five-week period. At the end of this time we should all have a better understanding of what it is like to learn online in your particular situation.

Please Note:

The diary entries are confidential between you and your 'diary person'. There will be no way of identifying you personally in the report of these exchanges. You will also have a chance to see the report of your chart of progress before it goes into print. If you wish to delete any comments that you know are yours you will have the opportunity to do this.

Appendix 10

Institute:
FG:
Teacher:

2nd Site Visit
Regional Perspectives of Online Learning
Learner Interview Questions

LEARNER PROFILE

Please fill in and/or tick appropriate responses

Contact Details (optional)

Name: _____

Phone: (___) _____

Email: _____

YOUR COURSE & MOTIVATION

Where are you up to in your online course/module? _____

_____

_____

What are your plans after you have completed the online parts of your course? _____

_____

_____

_____

Would you study online again?

☐ Yes. Why? _____

_____

☐ No. Why not? _____

_____

You indicated that online delivery was/wasn't your preferred mode when we spoke to you earlier in the year, has this change?

☐ Yes. Why? _____

_____

☐ No. Why not? _____

_____

YOUR LEARNING EXPERIENCE

Has studying online become easier, harder or remained the same since the first few weeks of your course?

☐ Easier. How? _____

_____

☐ Harder. How? _____

_____

☐ Remained the same. In what way? _____

_____

Has studying online become more or less enjoyable since the first few weeks of your course?

☐ More Enjoyable. In what way? _____

_____

☐ Less Enjoyable. In what way? _____

_____

☐ Remained the same. In what way? _____

_____

BENEFITS OF ONLINE LEARNING

What about studying online do you believe has been the most beneficial for you? _____

_____

_____

_____

You and other learners we spoke with earlier in our research program identified the following benefits of online learning. To what extent do you believe you have received these benefits?

Convenience _____

_____

_____

Quick & easy _____

_____

_____

Improve computer/internet skills _____

_____

_____

Flexible _____

_____

_____

What do you believe about online learning is most in need of improvement? _____

_____

_____

_____

_____

How do you believe this improvement could be made? _____

_____

_____

_____

_____

You and other learners we spoke with earlier in our research program identified the following negative aspects of online learning. To what extent do you believe you have experienced these negative aspects of online learning?

Confusion/delays caused by not communicating face-to-face _____

_____

_____

Nervousness with technology _____

_____

_____

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Isolation _____

_____

_____

More time consuming _____

_____

_____

Lack of self discipline _____

_____

_____

BARRIERS TO LEARNING

You and other learners we spoke with earlier in our research program have identified a number of barriers to their online learning. To what extent do you believe these barriers have impacted upon your ability to learn online?

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion
		X			

Please place cross to indicate response. Eg.

Academic Support:

Responses to queries too slow.....

How is this impacting on you? Please provide an example _____

_____

_____

Learning Resources:

Lack of online resources.....

Lack of other resources (eg library).....

Text and online resources do not match.....

How are these impacting on you? Please provide examples _____

_____

_____

Communication Problems:

Poor quality of video streaming.....

Uncertainty about messages being received.....

Problems with attachments.....

Slow responses.....

Out of sync, synchronous chat (eg. Chat times are not set)....

Lack of regular feedback.....

How are these impacting on you? Please provide examples _____

_____

_____

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Time:

Other time commitments..... |_____|_____|_____|_____|_____|

Course too short..... |_____|_____|_____|_____|_____|

Course too time consuming..... |_____|_____|_____|_____|_____|

How are these impacting on you? Please provide examples _____

_____

_____

Difficulties Starting:

Difficulties with logging on..... |_____|_____|_____|_____|_____|

Difficulties with passwords..... |_____|_____|_____|_____|_____|

Difficulties with navigation..... |_____|_____|_____|_____|_____|

Difficulties with email..... |_____|_____|_____|_____|_____|

Difficulties with computer terminology..... |_____|_____|_____|_____|_____|

Lack of motivation..... |_____|_____|_____|_____|_____|

How are these impacting on you? Please provide examples _____

_____

_____

Technology:

Lack of technology skills..... |_____|_____|_____|_____|_____|

Isolating..... |_____|_____|_____|_____|_____|

System down..... |_____|_____|_____|_____|_____|

How are these impacting on you? Please provide examples _____

_____

_____

Technology Costs:

Cost of upgrades/setting up (hardware)..... |_____|_____|_____|_____|_____|

Cost of software..... |_____|_____|_____|_____|_____|

How are these impacting on you? Please provide examples _____

_____

_____

Please feel free to make any additional comments _____

_____

_____

_____

_____

_____

_____

Thank you for your valued contribution to this research. If you have any questions or wish to discuss any of these issues further please do not hesitate to email Katie on kscholten@wodonga.tafe.edu.au

Appendix 11

Institute:

FG:

2nd Site Visit

Regional Perspectives of Online Learning

Teacher Interview Questions

TEACHER PROFILE

Please fill in and/or tick appropriate responses

Contact Details (optional)

Name: _____

Phone: (___) _____

Email: _____

YOUR COURSE & MOTIVATION

You taught _____ online when we visited earlier in the year, is this course still available online? ☐ Yes ☐ No

If no, why not? _____

_____

_____

_____

How many learners do you have currently enrolled in this course? _____

Have you had any learners withdraw from the course? ☐ Yes ☐ No

If yes, what were their reasons for withdrawing? _____

_____

_____

_____

How long does this course take to complete online? _____

If the course were offered face-to-face, how long do you believe it would take to complete? _____

Have you changed any of the online components of the course, if so which? Why? _____

_____

_____

_____

Have you added any more online subjects to your load in the recent months?

☐ Yes, what are they and why are they being offered online? _____

_____

_____

_____

☐ No, why not? _____

_____

_____

_____

You said online delivery was/was not your preferred mode of delivery when we visited earlier in the year. Is this still the case?

☐ Yes

☐ No, what influenced your change of mind? _____

_____

_____

YOUR IMPRESSIONS OF ONLINE LEARNERS

Do you believe the experience of learning online has changed for your learners since the beginning few weeks of their course?

☐ Yes. Why? _____

_____

☐ No. Why not? _____

_____

Has the way you communicate with your online learners changed since the beginning few weeks of their course? How and why? _____

_____

_____

_____

_____

BENEFITS OF ONLINE LEARNING

What about studying online do you believe has been the most beneficial for your learners? _____

_____

_____

_____

_____

Learners we spoke with earlier in our research program identified the following benefits of online learning. To what extent do you believe your learners received these benefits?

Convenience _____

_____

_____

_____

_____

Quick & easy _____

_____

_____

_____

_____

Improve computer/internet skills _____

_____

_____

_____

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Flexible _____

What do you believe your learners would identify about online learning as being the aspect most in need of improvement?

How do you believe this improvement could be made? _____

Learners we spoke with earlier in our research program identified the following negative aspects of online learning. To what extent do you believe your learners experienced these negative aspects of online learning?

Confusion/delays caused by not communicating face-to-face _____

Nervousness with technology _____

Isolation _____

More time consuming _____

Lack of self discipline _____

BARRIERS TO LEARNING

Learners we spoke with earlier in our research program have identified a number of barriers to their online learning. To what extent do you believe these barriers impact upon your learners' ability to learn online?

	No impact on progress	Slightly impedes progress	Moderately impedes progress	Markedly impedes progress	Prevents successful completion
		X			

Please place cross to indicate response. Eg.

Academic Support:

Responses to queries too slow.....

How is this impacting on your learners? Please provide an example _____

Learning Resources:

Lack of online resources.....

Lack of other resources (eg library).....

Text and online resources do not match.....

How are these impacting on your learners? Please provide examples _____

Communication Problems:

Poor quality of video streaming.....

Uncertainty about messages being received.....

Problems with attachments.....

Slow responses.....

Out of sync, synchronous chat (eg. Chat times are not set)....

Lack of regular feedback.....

How are these impacting on your learners? Please provide examples _____

Time:

Other time commitments.....

Course too short.....

Course too time consuming.....

How are these impacting on your learners? Please provide examples _____

_____

_____

_____

Difficulties Starting:

Difficulties with logging on..... |_____|_____|_____|_____|_____|

Difficulties with passwords..... |_____|_____|_____|_____|_____|

Difficulties with navigation..... |_____|_____|_____|_____|_____|

Difficulties with email..... |_____|_____|_____|_____|_____|

Difficulties with computer terminology..... |_____|_____|_____|_____|_____|

Lack of motivation..... |_____|_____|_____|_____|_____|

How are these impacting on your learners? Please provide examples _____

_____

_____

_____

Technology:

Lack of technology skills..... |_____|_____|_____|_____|_____|

Isolating..... |_____|_____|_____|_____|_____|

System down..... |_____|_____|_____|_____|_____|

How are these impacting on your learners? Please provide examples _____

_____

_____

_____

Technology Costs:

Cost of upgrades/setting up (hardware)..... |_____|_____|_____|_____|_____|

Cost of software..... |_____|_____|_____|_____|_____|

How are these impacting on your learners? Please provide examples _____

_____

_____

_____

Please feel free to make any additional comments _____

_____

_____

Thank you for your valued contribution to this research. If you have any questions or wish to discuss any of these issues further please do not hesitate to email Katie on kscholten@wodonga.tafe.edu.au

Appendix 12

Table 11: Learner interview details

Visit	No. of face-to-face interviews	No. of phone interviews	Total no. of interviews
1	34	12	46
2	3	18	21

Institute	No. of learners interviewed
Tropical North Queensland Institute of TAFE	17
Onkaparinga Institute of TAFE	16
Goulburn Ovens Institute of TAFE	7
Wodonga Institute of TAFE	6
Total	**46**

Program area	No. of learners interviewed
Business administration	1
Community services	6
Education	1
Frontline management	2
Information technology	8
Multimedia	9
Nursing	4
Occupational health & safety	4
Payroll	3
Pre-vocational	1
Small business management	1
Workplace trainer & assessor	6
Total	**46**

Table 12: Teacher interview details

Visit	No. of face-to-face interviews	No. of phone interviews	Total no. of interviews
1	17	6	23
2	4	12	16

Institute	No. of teachers interviewed
Tropical North Queensland Institute of TAFE	6
Onkaparinga Institute of TAFE	8
Goulburn Ovens Institute of TAFE	4
Wodonga Institute of TAFE	5
Total	**23**

Program area	No. of teachers interviewed
Building & construction	4
Business studies	2
Community services	1
Education	1
Electrotechnology	1
Engineering	1
Frontline management	2
Hospitality & tourism	1
Human resources	1
Information technology	2
Nursing	2
Pre-vocational	1
Various	2
Workplace trainer & assessor	2
Total	**23**

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